



SEQUENCE LISTING

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 Glu Asp Ile Lys Arg Thr Pro Asn Asn Val Val Ser Thr Pro Ala Pro
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Ser Pro Asp Ala Ser Gln Leu Ala Ser Ser Leu Ser Ser Gln Lys Glu
 180 185 190
 Val Ala Ala Thr Glu Glu Asp Val Thr Arg Leu Pro Ser Pro Thr Ser
 195 200 205
 Pro Phe Ser Ser Leu Ser Gln Asp Gln Ala Ala Thr Ser Lys Ala Thr
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 Leu Ser Ser Thr Ser Gly Leu Asp Leu Met Ser Glu Ser Gly Glu Gly
 225 230 235 240
 Glu Ile Ser Pro Gln Arg Glu Val Ser Arg Ser Gln Asp Gln Phe Ser
 245 250 255
 Asp Met Arg Ile Ser Ile Asn Gln Thr Pro Gly Lys Ser Leu Asp Phe
 260 265 270
 Gly Phe Thr Ile Lys Trp Asp Ile Pro Gly Ile Phe Val Ala Ser Val
 275 280 285
 Glu Ala Gly Ser Pro Ala Glu Phe Ser Gln Leu Gln Val Asp Asp Glu
 290 295 300
 Ile Ile Ala Ile Asn Asn Thr Lys Phe Ser Tyr Asn Asp Ser Lys Glu
 305 310 315 320
 Trp Glu Glu Ala Met Ala Lys Ala Gln Glu Thr Gly His Leu Val Met
 325 330 335
 Asp Val Arg Arg Tyr Gly Lys Ala Asp Trp Gly Lys Asp Gln Pro Ser
 340 345 350
 Leu Pro Phe Ile Arg His Lys Thr Leu Asn Leu Thr Ser Met Ala Thr
 355 360 365
 Lys Ile Ile Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly
 370 375 380
 Ile Tyr Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe
 385 390 395 400
 Ser Glu Ser Leu Arg Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly
 405 410 415
 Ile His Asp Glu Ser Asn Ala Phe Asp Ser Lys Ala Ser Glu Ser Ile
 420 425 430
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Arg Gln Ser Trp Gly Gln Cys Gln Pro Val Cys Gln Pro Arg Cys
 50 55 60

Lys His Gly Glu Cys Ile Gly Pro Asn Lys Cys Lys Cys His Pro Gly
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 Tyr Ala Gly Lys Thr Cys Asn Gln Asp Leu Asn Glu Cys Gly Leu Lys
 85 90 95
 Pro Arg Pro Cys Lys His Arg Cys Met Asn Thr Tyr Gly Ser Tyr Lys
 100 105 110
 Cys Tyr Cys Leu Asn Gly Tyr Met Leu Met Pro Asp Gly Ser Cys Ser
 115 120 125
 Ser Ala Leu Thr Cys Ser Met Ala Asn Cys Gln Tyr Gly Cys Asp Val
 130 135 140
 Val Lys Gly Gln Ile Arg Cys Gln Cys Pro Ser Pro Gly Leu Gln Leu
 145 150 155 160
 Ala Pro Asp Gly Arg Thr Cys Val Asp Val Asp Glu Cys Ala Thr Gly
 165 170 175
 Arg Ala Ser Cys Pro Arg Phe Arg Gln Cys Val Asn Thr Phe Gly Ser
 180 185 190
 Tyr Ile Cys Lys Cys His Lys Gly Phe Asp Leu Met Tyr Ile Gly Gly
 195 200 205
 Lys Tyr Gln Cys His Asp Ile Asp Glu Cys Ser Leu Gly Gln Tyr Gln
 210 215 220
 Cys Ser Ser Phe Ala Arg Cys Tyr Asn Ile Arg Gly Ser Tyr Lys Cys
 225 230 235 240
 Lys Cys Lys Glu Gly Tyr Gln Gly Asp Gly Leu Thr Cys Val Tyr Ile
 245 250 255
 Pro Lys Val Met Ile Glu Pro Ser Gly Pro Ile His Val Pro Lys Gly
 260 265 270
 Asn Gly Thr Ile Leu Lys Gly Asp Thr Gly Asn Asn Asn Trp Ile Pro
 275 280 285
 Asp Val Gly Ser Thr Trp Trp Pro Pro Lys Thr Pro Tyr Ile Pro Pro
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 Ile Ile Thr Asn Arg Pro Thr Ser Lys Pro Thr Thr Arg Pro Thr Pro
 305 310 315 320
 Lys Pro Thr Pro Ile Pro Thr Pro Pro Pro Pro Pro Pro Leu Pro Thr
 325 330 335
 Glu Leu Arg Thr Pro Leu Pro Pro Thr Thr Pro Glu Arg Pro Thr Thr
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 Gly Leu Thr Thr Ile Ala Pro Ala Ala Ser Thr Pro Pro Gly Gly Ile
 355 360 365

Thr Val Asp Asn Arg Val Gln Thr Asp Pro Gln Lys Pro Arg Gly Asp
 370 375 380
 Val Phe Ser Val Leu Val His Ser Cys Asn Phe Asp His Gly Leu Cys
 385 390 395 400
 Gly Trp Ile Arg Glu Lys Asp Asn Asp Leu His Trp Glu Pro Ile Arg
 405 410 415
 Asp Pro Ala Gly Gly Gln Tyr Leu Thr Val Ser Ala Ala Lys Ala Pro
 420 425 430
 Gly Gly Lys Ala Ala Arg Leu Val Leu Pro Leu Gly Arg Leu Met His
 435 440 445
 Ser Gly Asp Leu Cys Leu Ser Phe Arg His Lys Val Thr Gly Leu His
 450 455 460
 Ser Gly Thr Leu Gln Val Phe Val Arg Lys His Gly Ala His Gly Ala
 465 470 475 480
 Ala Leu Trp Gly Arg Asn Gly Gly His Gly Trp Arg Gln Thr Gln Ile
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 Thr Leu Arg Gly Ala Asp Ile Lys Ser Val Val Phe Lys Gly Glu Lys
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 <212> DNA
 <213> Homo sapiens

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 aagtttattc ttgaacaacg ggaacatgaa aagcttcaac aaaaagaatt acaaattgat 1020

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<211> 709

<212> PRT

<213> Homo sapiens

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35 40 45

Glu Ser Lys Gln Asn Leu Asn Val Asp Lys Asp Thr Thr Leu Pro Ala
50 55 60

Ser Ala Arg Lys Val Lys Ser Ser Glu Ser Lys Ile Arg Val Leu Leu
65 70 75 80

Gln Glu Arg Gly Ala Gln Asp Arg Arg Ile Gln Asp Leu Glu Thr Glu
85 90 95

Leu Glu Lys Met Glu Ala Arg Leu Asn Ala Ala Leu Arg Glu Lys Thr
100 105 110

Ser Leu Ser Ala Asn Asn Ala Thr Leu Glu Lys Gln Leu Ile Glu Leu
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 Thr Arg Thr Asn Glu Leu Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn
 130 135 140
 Gln Lys Asn Leu Arg Ile Leu Ser Leu Glu Leu Met Lys Leu Arg Asn
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 Lys Arg Glu Thr Lys Met Arg Gly Met Met Ala Lys Gln Glu Gly Met
 165 170 175
 Glu Met Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Ser Gln Gly
 180 185 190
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 195 200 205
 Ile Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu Glu
 210 215 220
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 225 230 235 240
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 Lys Gln Ser Leu Glu Asp Asn Ile Val Ile Leu Ser Lys Gln Val Glu
 260 265 270
 Asp Leu Asn Val Lys Cys Gln Leu Leu Glu Thr Glu Lys Glu Asp His
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 Val Asn Arg Asn Arg Glu His Asn Glu Asn Leu Asn Ala Glu Met Gln
 290 295 300
 Asn Leu Glu Gln Lys Phe Ile Leu Glu Gln Arg Glu His Glu Lys Leu
 305 310 315 320
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 325 330 335
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 405 410 415

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 Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Asn Lys Thr Lys
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 Ser Tyr Ala Lys Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys
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 Ser Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr Lys
 645 650 655
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 Ser Lys Ala Phe His His Glu Ser Lys Glu Asn Phe Ala Leu Lys Thr
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 <211> 2020
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 35 40 45

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 50 55 60
 Ser Ala Arg Lys Val Lys Ser Ser Glu Ser Lys Ile Cys Val Leu Leu
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 85 90 95
 Leu Glu Lys Met Glu Ala Arg Leu Asn Ala Ala Leu Arg Glu Lys Thr
 100 105 110
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 Thr Arg Thr Asn Glu Leu Leu Lys Ser Lys Val Ser Ile Glu Lys Glu
 130 135 140
 Lys Ile Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu
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 Glu Ile Ser Cys Ala Ser Asp Gln Val Glu Lys Tyr Lys Leu Asp Ile
 165 170 175
 Ala Gln Leu Glu Glu Asn Leu Lys Glu Lys Asn Asp Glu Ile Leu Ser
 180 185 190
 Leu Lys Gln Ser Leu Glu Asp Asn Ile Val Ile Leu Ser Lys Gln Val
 195 200 205
 Glu Asp Leu Asn Val Lys Cys Gln Leu Leu Glu Thr Glu Lys Glu Asp
 210 215 220
 His Val Asn Arg Asn Arg Glu His Asn Glu Asn Leu Asn Ala Glu Met
 225 230 235 240
 Gln Asn Leu Glu Gln Lys Phe Ile Leu Glu Gln Arg Glu His Glu Lys
 245 250 255
 Leu Gln Gln Lys Glu Leu Gln Ile Asp Ser Leu Leu Gln Gln Glu Lys
 260 265 270
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 275 280 285
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 325 330 335
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 340 345 350

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 385 390 395 400
 Ser Leu Gln Glu Lys Ala Ala Lys Ala Gly Lys Asn Ala Glu Asp Val
 405 410 415
 Gln His Gln Ile Leu Ala Thr Glu Ser Ser Asn Gln Glu Tyr Val Arg
 420 425 430
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 450 455 460
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 465 470 475 480
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 530 535 540
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 565 570 575
 Val Ser Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr
 580 585 590
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 595 600 605
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 <212> PRT
 <213> Homo sapiens

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625

630

635

640

Ser Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr Lys
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Leu Gln Glu Glu Leu Asn Lys Val Leu Gly Ile Lys His Phe Asp Pro
660 665 670

Ser Lys Ala Phe His His Glu Ser Lys Glu Asn Phe Ala Leu Lys Thr
675 680 685

Pro Leu Lys Glu Gly Asn Thr Asn Cys Tyr Arg Ala Pro Met Glu Cys
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Gln Glu Ser Trp Lys
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<210> 19

<211> 1196

<212> DNA

<213> Homo sapiens

<400> 19

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<212> PRT

<213> Homo sapiens

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 Gly Leu Val Ser Cys Tyr Phe Gly Gln Leu Leu Ser Lys Leu Asp Arg
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 Ile Lys Thr Asp Tyr Thr Leu Ser Ile Ala Asn Arg Leu Tyr Gly Glu
 85 90 95
 Ser Ser Leu Gly Asp Lys Ser Glu Thr Leu Ser Gln Lys Lys Lys Lys
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 Lys Ile Ile Tyr Thr Asn Ala Phe Asp Thr Ile His Thr Gln Asp Ile
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 Leu Trp Asp Leu Phe Leu Gly Lys Ile Lys Glu Leu Phe Ser Lys Asp
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 Ala Ile Asn Ala Glu Thr Val Leu Val Leu Val Asn Ala Val Tyr Phe
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 Lys Ala Lys Trp Glu Thr Tyr Phe Asp His Glu Asn Thr Val Asp Ala
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 Pro Phe Cys Leu Asn Gln Asn Glu Asn Lys Ser Val Lys Met Met Thr
 180 185 190
 Gln Lys Gly Leu Tyr Arg Ile Gly Phe Ile Glu Glu Val Lys Ala Gln
 195 200 205
 Ile Leu Glu Met Arg Tyr Thr Lys Gly Lys Leu Ser Met Phe Val Leu
 210 215 220
 Leu Pro Ser His Ser Lys Asp Asn Leu Lys Gly Ile Thr Tyr Glu Lys
 225 230 235 240
 Met Val Ala Trp Ser Ser Ser Glu Asn Met Ser Glu Glu Ser Val Val
 245 250 255
 Leu Ser Phe Pro Arg Phe Thr Leu Glu Asp Ser Tyr Asp Leu Asn Ser
 260 265 270
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 Asp Leu Thr Gly Ile Ser Pro Ser Pro Asn Leu Tyr Leu Ser Lys Ile
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 Ile His Lys Thr Phe Val Glu Val Asp Glu Asn Gly Thr Gln Ala Ala
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 Ala Ala Thr Gly Ala Val Val Ser Glu Arg Ser Leu Arg Ser Trp Val
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 <213> Homo sapiens

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 35 40 45

Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp Gly
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Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser Thr
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Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val Tyr
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Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly Pro
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Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys Val
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Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Ala Pro Pro Thr
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Ser Ile Glu Val Val Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg Tyr
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Gln Ala Gln Asn Phe Thr Leu Val Cys Ile Val Ser Gly Gly Lys Pro
 165 170 175

Ala Pro Met Val Tyr Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala Val
 180 185 190

Pro Leu Ser Glu Pro Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp Ser
 195 200 205

Arg Pro Phe Arg Ser Leu Leu Leu Asp Leu Asp Asp Thr Lys Met Gln
 210 215 220

Lys Ser Leu Ser Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg Pro Tyr
 225 230 235 240

Thr Glu Arg Pro Ser Arg Gly Leu Thr Pro Asp Pro Asn Ile Leu Leu
 245 250 255

Gln Pro Thr Thr Glu Asn Ile Pro Glu Thr Val Val Ser Arg Glu Phe
 260 265 270

Pro Arg Trp Val His Ser Ala Glu Pro Thr Tyr Phe Leu Arg His Ser
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Arg Thr Pro Ser Ser Asp Gly Thr Val Glu Val Arg Ala Leu Leu Thr
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Trp Thr Leu Asn Pro Gln Ile Asp Asn Glu Ala Leu Phe Ser Cys Glu
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Val Lys His Pro Ala Leu Ser Met Pro Met Arg Ala Glu Val Thr Pro
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Val Ala Pro Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg Ala Arg
 340 345 350

Val Gly Asp Thr Val Arg Ile Leu Val His Gly Phe Gln Asn Glu Val
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Phe Pro Glu Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg Leu Leu
370 375 380

Asp Gly Ser Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu Arg Val
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Pro Ala Glu Leu Asn Gly Ser Met Tyr Arg Cys Thr Ala Gln Asn Pro
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Leu Gly Ser Thr Asp Thr His Thr Arg Leu Ile Val Phe Glu Asn Pro
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Asn Ile Pro Arg Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly Pro Thr
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465

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp
 50 55 60
 Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser
 65 70 75 80
 Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val
 85 90 95
 Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly
 100 105 110
 Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys
 115 120 125
 Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Ala Pro Pro
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 Thr Ser Ile Glu Val Val Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg
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 Tyr Gln Ala Gln Asn Phe Thr Leu Val Cys Ile Val Ser Gly Gly Lys
 165 170 175
 Pro Ala Pro Met Val Tyr Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala
 180 185 190
 Val Pro Leu Ser Glu Pro Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp
 195 200 205
 Ser Arg Pro Phe Arg Ser Leu Leu Leu Asp Leu Asp Asp Thr Lys Met
 210 215 220
 Gln Lys Ser Leu Ser Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg Pro
 225 230 235 240
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 245 250 255

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 260 265 270
 Phe Pro Arg Trp Val His Ser Ala Glu Pro Thr Tyr Phe Leu Arg His
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 305 310 315 320
 Glu Val Lys His Pro Ala Leu Ser Met Pro Met Arg Ala Glu Val Thr
 325 330 335
 Pro Val Ala Pro Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg Ala
 340 345 350
 Arg Val Gly Asp Thr Val Arg Ile Leu Val His Gly Phe Gln Asn Glu
 355 360 365
 Val Phe Pro Glu Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg Leu
 370 375 380
 Leu Asp Gly Ser Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu Arg
 385 390 395 400
 Val Pro Ala Glu Leu Asn Gly Ser Met Tyr Arg Cys Thr Ala Gln Asn
 405 410 415
 Pro Leu Gly Ser Thr Asp Thr His Thr Arg Leu Ile Val Phe Glu Asn
 420 425 430
 Pro Asn Ile Pro Arg Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly Pro
 435 440 445
 Thr Gly Ala Arg Leu Thr Leu Val Leu Ala Leu Thr Val Ile Leu Glu
 450 455 460
 Leu Thr
 465

<210> 25

<211> 1407

<212> DNA

<213> Homo sapiens

<400> 25

atgcgaaccg ccccgagcct ccgcccgtgc gtctgcctgc tgctcgccgc gatcctggac 60
 ctggcgcgcg gctacctgac agtcaacatt gagcctctcc cccctgtggt ggctggagac 120
 gccgtgactt tgaagtgtaa cttcaagaca gatgggcgca tgcgggagat cgtgtggtac 180
 cgggtgacgg atggtggcac catcaagcaa aagatcttca ccttcgacgc catgttctcc 240
 accaactact cacacatgga gaactaccgc aagcgagagg acctggtgta ccagtccact 300
 gtgaggctgc ccgaggtccg gatctcagac aatggtccct atgagtgcca tgtgggcatc 360
 tacgaccgcg ccaccaggga gaaggtggtc ctggcatcag gcaacatctt cctcaacgtc 420

```

atggctcctc ccacctccat tgaagtgggt gctgctgaca caccagcccc cttcagccgc 480
taccaagccc agaacttcac gctgggtctgc atcgtgtctg gaggaaaacc agcaccatg 540
gtttatttca aacgagatgg ggaaccaatc gacgcagtgc ccctatcaga gccaccagct 600
gcgagctccg gccccctaca ggacagcagg cccttccgca gccttctgca ccgtgacctg 660
gatgacacca agatgcagaa gtcactgtcc ctcttgagc ccgagaaccg ggggtgggcga 720
ccctacacgg agcgcctcct ccgtggcctg accccagatc ccaacatcct cctccagcca 780
accacagaga acataaccaga gacggtcgtg agccgtgagt ttccccgctg ggtccacagc 840
gccgagccca cctacttctt gcgccacagc cgcaccccga gcagtgcagg cactgtggaa 900
gtacgtgccc tgctcacctg gaccctcaac ccacagatcg acaacgaggc cctcttcagc 960
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cccaaaggac ccaaaattgt gatgacgccc agcagagccc gggtagggga cacagtgagg 1080
attctggtcc atgggtttca gaacgaagtc ttcccgagc ccatgttcac gtggacgcgg 1140
gttgggagcc gcctcctgga cggcagcgct gagttcgac ggaaggagct ggtgctggag 1200
cgggttcccg ccgagctcaa tggctccatg tctcgctgca ccgccagaa cccactgggc 1260
tccaccgaca cgcacacccg gctcatcgtg tttgaaaacc caaatatccc aagaggaacg 1320
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acagtgattc tggagctgac gtgaagg 1407

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<210> 26

<211> 467

<212> PRT

<213> Homo sapiens

<400> 26

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Met Arg Thr Ala Pro Ser Leu Arg Arg Cys Val Cys Leu Leu Leu Ala
  1              5              10              15

```

```

Ala Ile Leu Asp Leu Ala Arg Gly Tyr Leu Thr Val Asn Ile Glu Pro
      20              25              30

```

```

Leu Pro Pro Val Val Ala Gly Asp Ala Val Thr Leu Lys Cys Asn Phe
      35              40              45

```

```

Lys Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp
      50              55              60

```

```

Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser
      65              70              75              80

```

```

Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val
      85              90              95

```

```

Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly
      100             105             110

```

```

Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys
      115             120             125

```

```

Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Ala Pro Pro
      130             135             140

```

```

Thr Ser Ile Glu Val Val Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg
      145             150             155             160

```

```

Tyr Gln Ala Gln Asn Phe Thr Leu Val Cys Ile Val Ser Gly Gly Lys
      165             170             175

```


Pro Ala Pro Met Val Tyr Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala
 180 185 190
 Val Pro Leu Ser Glu Pro Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp
 195 200 205
 Ser Arg Pro Phe Arg Ser Leu Leu His Arg Asp Leu Asp Asp Thr Lys
 210 215 220
 Met Gln Lys Ser Leu Ser Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg
 225 230 235 240
 Pro Tyr Thr Glu Arg Pro Ser Arg Gly Leu Thr Pro Asp Pro Asn Ile
 245 250 255
 Leu Leu Gln Pro Thr Thr Glu Asn Ile Pro Glu Thr Val Val Ser Arg
 260 265 270
 Glu Phe Pro Arg Trp Val His Ser Ala Glu Pro Thr Tyr Phe Leu Arg
 275 280 285
 His Ser Arg Thr Pro Ser Ser Asp Gly Thr Val Glu Val Arg Ala Leu
 290 295 300
 Leu Thr Trp Thr Leu Asn Pro Gln Ile Asp Asn Glu Ala Leu Phe Ser
 305 310 315 320
 Cys Glu Val Lys His Pro Ala Leu Ser Met Pro Met Gln Ala Glu Val
 325 330 335
 Thr Leu Val Ala Pro Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg
 340 345 350
 Ala Arg Val Gly Asp Thr Val Arg Ile Leu Val His Gly Phe Gln Asn
 355 360 365
 Glu Val Phe Pro Glu Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg
 370 375 380
 Leu Leu Asp Gly Ser Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu
 385 390 395 400
 Arg Val Pro Ala Glu Leu Asn Gly Ser Met Tyr Arg Cys Thr Ala Gln
 405 410 415
 Asn Pro Leu Gly Ser Thr Asp Thr His Thr Arg Leu Ile Val Phe Glu
 420 425 430
 Asn Pro Asn Ile Pro Arg Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly
 435 440 445
 Pro Thr Gly Ala Arg Leu Thr Leu Val Leu Ala Leu Thr Val Ile Leu
 450 455 460
 Glu Leu Thr
 465

<210> 27
 <211> 682
 <212> DNA
 <213> Homo sapiens

<400> 27
 accatgcgaa cgcggccgag cctccgcccgc tgcccggccac cgccctcggcc agtggccgga 60
 ggcaggagcg cgtctgagtt tccccgctgg gtccacagcg ccgagccac ctacttctg 120
 cgccacagcc gcaccccgag cagtgcggc actgtggaag tacgtgccct gctcacctgg 180
 accctcaacc cacagatcga caacgaggcc ctcttcagct gcgagggtcaa gcacccagct 240
 ctgtcgaatgc ccatgcgggc agaggtcacg ctggttgccc ccaaaggacc caaaattgtg 300
 atgatgcccga gcagagcccg ggtaggggac acagtgcgga ttctgggtcca tgggtttcag 360
 aacgaagtct tccgggagcc catgttcacg tggacgcggg ttgggagccg cctcctggac 420
 ggcagcgctg agttcgacgg gaaggagctg gtgctggagc gggttcccgc cgagctcaat 480
 ggctccatgt atcgtgcac cgcccagaac ccactgggct ccactgacac gcacaccccg 540
 ctcatcgtgt ttgaaaaccc aaatatccca agaggaacgg aggactctaa tgggttcatt 600
 gccccactg gtgcccggct caccttggtg ctgcgcctga cagtgcattct ggagctgacg 660
 tgatgacagt gattctggag ct 682

<210> 28
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Arg Thr Ala Pro Ser Leu Arg Arg Cys Pro Pro Pro Pro Arg Pro
 1 5 10 15
 Val Ala Gly Gly Arg Ser Ala Ser Glu Phe Pro Arg Trp Val His Ser
 20 25 30
 Ala Glu Pro Thr Tyr Phe Leu Arg His Ser Arg Thr Pro Ser Ser Asp
 35 40 45
 Gly Thr Val Glu Val Arg Ala Leu Leu Thr Trp Thr Leu Asn Pro Gln
 50 55 60
 Ile Asp Asn Glu Ala Leu Phe Ser Cys Glu Val Lys His Pro Ala Leu
 65 70 75 80
 Ser Met Pro Met Arg Ala Glu Val Thr Leu Val Ala Pro Lys Gly Pro
 85 90 95
 Lys Ile Val Met Met Pro Ser Arg Ala Arg Val Gly Asp Thr Val Arg
 100 105 110
 Ile Leu Val His Gly Phe Gln Asn Glu Val Phe Pro Glu Pro Met Phe
 115 120 125
 Thr Trp Thr Arg Val Gly Ser Arg Leu Leu Asp Gly Ser Ala Glu Phe
 130 135 140
 Asp Gly Lys Glu Leu Val Leu Glu Arg Val Pro Ala Glu Leu Asn Gly
 145 150 155 160

Ser Met Tyr Arg Cys Thr Ala Gln Asn Pro Leu Gly Ser Thr Asp Thr
 165 170 175

His Thr Arg Leu Ile Val Phe Glu Asn Pro Asn Ile Pro Arg Gly Thr
 180 185 190

Glu Asp Ser Asn Gly Ser Ile Ala Pro Thr Gly Ala Arg Leu Thr Leu
 195 200 205

Val Leu Ala Leu Thr Val Ile Leu Glu Leu Thr
 210 215

<210> 29

<211> 992

<212> DNA

<213> Homo sapiens

<400> 29

accatgcgaa cgcgccccgag cctccgcccgc tgcgtctgcc tgctgctcgc cgcgatacctg 60
 gacctggcgc gcggctacct gacagtcaac attgagcctc tccccctgt ggtggctgga 120
 gacgccgtga ctttgaagtg taacttcaag acagatgggc gcatgcggga gatcgtgtgg 180
 taccgggtga cggatggtgg caccatcaag caaaagatct tcacctcga cgccatgttc 240
 tccaccaact actcacacat ggagaactac cgcaagcgag aggacctggt gtaccagtcc 300
 actgtgaggc tgcccagagg ccggatctca gacaatggtc cctatgagt ccatgtgggc 360
 atctacgacc gcgccaccag ggagaagggt gtcctggcat caggcaacat cttcctcaac 420
 gtcatggttg ccccccagg acccaaaatt gtgatgacgc ccagcagagc ccgggtaggg 480
 gacacagtga ggattctggt ccatgggttt cagaacgaag tcttcccga gcccatgttc 540
 acgtggacgc ggggtgggag ccgcctcctg gacggcagcg ctgagttcga cgggaaggag 600
 ctggtgctgg agcgggttcc cgccgagctc aatggctcca tgtatcgctg caccgccccg 660
 aaccactgg gctccaccga cagcacacc cggctcatcg tgtttgaaaa cccaaatatt 720
 ccaagaggaa cggaggactc taatgggttc attggcccc ctggtgccc gctcaccttg 780
 gtgctcgccc tgacagtgat tctggagctg acgtgaagac agtgattctg gagctgacgt 840
 gacagtgatt ctggagctga cgtgatgaca gtgattctgg agctgacgtg atgacagtga 900
 ttctggagct gacgtgatga cagtattctt ggagctgacg tgatgacagt gattctggag 960
 ctgacgtgat gacagtgatt ctggagctga cg 992

<210> 30

<211> 270

<212> PRT

<213> Homo sapiens

<400> 30

Met Arg Thr Ala Pro Ser Leu Arg Arg Cys Val Cys Leu Leu Leu Ala
 1 5 10 15

Ala Ile Leu Asp Leu Ala Arg Gly Tyr Leu Thr Val Asn Ile Glu Pro
 20 25 30

Leu Pro Pro Val Val Ala Gly Asp Ala Val Thr Leu Lys Cys Asn Phe
 35 40 45

Lys Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp
 50 55 60

Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser
 65 70 75 80
 Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val
 85 90 95
 Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly
 100 105 110
 Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys
 115 120 125
 Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Val Ala Pro
 130 135 140
 Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg Ala Arg Val Gly Asp
 145 150 155 160
 Thr Val Arg Ile Leu Val His Gly Phe Gln Asn Glu Val Phe Pro Glu
 165 170 175
 Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg Leu Leu Asp Gly Ser
 180 185 190
 Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu Arg Val Pro Ala Glu
 195 200 205
 Leu Asn Gly Ser Met Tyr Arg Cys Thr Ala Pro Asn Pro Leu Gly Ser
 210 215 220
 Thr Asp Thr His Thr Arg Leu Ile Val Phe Glu Asn Pro Asn Ile Pro
 225 230 235 240
 Arg Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly Pro Thr Gly Ala Arg
 245 250 255
 Leu Thr Leu Val Leu Ala Leu Thr Val Ile Leu Glu Leu Thr
 260 265 270

<210> 31
 <211> 1341
 <212> DNA
 <213> Homo sapiens

<400> 31
 ggatcctacc tgacagtcaa cattgagcct ctccccctg tgggtggtgg agacgccgtg 60
 actttgaagt gtaacttcaa gacagatggg cgcattgcggg agatcgtgtg gtaccgggtg 120
 acggatggtg gcaccatcaa gcaaaagatc ttacacctcg acgccatgtt ctccaccaac 180
 tactcacaca tggagaacta ccgcaagcga gaggacctgg tgtaccagtc cactgtgagg 240
 ctgccccagg tccgcatctc agacaatggg ccctatgagt gccatgtggg catctacgac 300
 cgcgccacca gggagaaggt ggtcctggca tcaggcaaca tcttcctcaa cgtcatggct 360
 cctccacact ccattgaagt ggtggctgct gacacaccag ccccttcag ccgctaccaa 420
 gccagaact tcacgctggt ctgcatcgtg tctggaggaa aaccagcacc catggtttat 480
 ttcaaacgag atggggaacc aatcgacgca gtgcccctat cagagccacc agctgcgagc 540
 tccggcccc tacaggacag caggcccttc cgcagccttc tgcaccgtga cctggatgac 600
 accaagatgc agaagtcact gtccctcctg gacgccgaga accggggtgg gcgaccctac 660

acggagcgcc cctcccgtgg cctgacccca gatcccaaca tcctcctcca gccaaccaca 720
 gagaacatac cagagacggg cgtgagccgt gagtttcccc gctgggtcca cagcgccgag 780
 cccacctact tcctgcgcca cagccgcacc ccgagcagtg acggcactgt ggaagtacgt 840
 gccctgctca cctggaccct caaccacag atcgacaacg aggccctctt cagctgcgag 900
 gtcaagcacc cagctctgtc gatgcccatt caggcagagg tcacgctggg tgcccccaaa 960
 ggacccaaaa ttgtgatgac gccagcaga gcccggttag gggacacagt gaggattctg 1020
 gtccatgggt ttcagaacga agtcttcccc gagcccatgt tcacgtggac gcgggttggt 1080
 agccgcctcc tggacggcag cgctgagttc gacgggaagg agctggtgct ggagcgggtt 1140
 cccgccgagc tcaatggctc catgtatcgc tgcaccgccc agaaccact gggctccacc 1200
 gacacgcaca cccggctcat cgtgtttgaa aacccaaata tcccaagagg aacggaggac 1260
 tctaattggt ccattggccc cactggtgcc cggctcacct tgggtgctcg cctgacagtg 1320
 attctggagc tgacgctcga g 1341

<210> 32

<211> 447

<212> PRT

<213> Homo sapiens

<400> 32

Gly Ser Tyr Leu Thr Val Asn Ile Glu Pro Leu Pro Pro Val Val Ala
 1 5 10 15

Gly Asp Ala Val Thr Leu Lys Cys Asn Phe Lys Thr Asp Gly Arg Met
 20 25 30

Arg Glu Ile Val Trp Tyr Arg Val Thr Asp Gly Gly Thr Ile Lys Gln
 35 40 45

Lys Ile Phe Thr Phe Asp Ala Met Phe Ser Thr Asn Tyr Ser His Met
 50 55 60

Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val Tyr Gln Ser Thr Val Arg
 65 70 75 80

Leu Pro Glu Val Arg Ile Ser Asp Asn Gly Pro Tyr Glu Cys His Val
 85 90 95

Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys Val Val Leu Ala Ser Gly
 100 105 110

Asn Ile Phe Leu Asn Val Met Ala Pro Pro Thr Ser Ile Glu Val Val
 115 120 125

Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg Tyr Gln Ala Gln Asn Phe
 130 135 140

Thr Leu Val Cys Ile Val Ser Gly Gly Lys Pro Ala Pro Met Val Tyr
 145 150 155 160

Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala Val Pro Leu Ser Glu Pro
 165 170 175

Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp Ser Arg Pro Phe Arg Ser
 180 185 190

Leu Leu His Arg Asp Leu Asp Asp Thr Lys Met Gln Lys Ser Leu Ser

195	200	205
Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg Pro Tyr Thr Glu Arg Pro 210 215 220		
Ser Arg Gly Leu Thr Pro Asp Pro Asn Ile Leu Leu Gln Pro Thr Thr 225 230 235 240		
Glu Asn Ile Pro Glu Thr Val Val Ser Arg Glu Phe Pro Arg Trp Val 245 250 255		
His Ser Ala Glu Pro Thr Tyr Phe Leu Arg His Ser Arg Thr Pro Ser 260 265 270		
Ser Asp Gly Thr Val Glu Val Arg Ala Leu Leu Thr Trp Thr Leu Asn 275 280 285		
Pro Gln Ile Asp Asn Glu Ala Leu Phe Ser Cys Glu Val Lys His Pro 290 295 300		
Ala Leu Ser Met Pro Met Gln Ala Glu Val Thr Leu Val Ala Pro Lys 305 310 315 320		
Gly Pro Lys Ile Val Met Thr Pro Ser Arg Ala Arg Val Gly Asp Thr 325 330 335		
Val Arg Ile Leu Val His Gly Phe Gln Asn Glu Val Phe Pro Glu Pro 340 345 350		
Met Phe Thr Trp Thr Arg Val Gly Ser Arg Leu Leu Asp Gly Ser Ala 355 360 365		
Glu Phe Asp Gly Lys Glu Leu Val Leu Glu Arg Val Pro Ala Glu Leu 370 375 380		
Asn Gly Ser Met Tyr Arg Cys Thr Ala Gln Asn Pro Leu Gly Ser Thr 385 390 395 400		
Asp Thr His Thr Arg Leu Ile Val Phe Glu Asn Pro Asn Ile Pro Arg 405 410 415		
Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly Pro Thr Gly Ala Arg Leu 420 425 430		
Thr Leu Val Leu Ala Leu Thr Val Ile Leu Glu Leu Thr Leu Glu 435 440 445		

<210> 33

<211> 702

<212> DNA

<213> Homo sapiens

<400> 33

ggatcctacc tgacagtcaa cattgagcct ctccccctg tgggtggctgg agacgccgtg 60
 actttgaagt gtaacttcaa gacagatggg cgcattgctgg agatcgtgtg gtaccgggtg 120
 acggatggtg gcaccatcaa gcaaaagatc ttcacctcg acgcatgtt ctccaccaac 180

tactcacaca tggagaacta ccgcaagcga gaggacctgg tgtaccagtc cactgtgagg 240
 ctgcccagagg tccggatctc agacaatggt ccctatgagt gccatgtggg catctacgac 300
 cgcgccacca gggagaaggt ggtcctggca tcaggcaaca tcttcctcaa cgtcatgggt 360
 gccccaaaag gacccaaaat tgtgatgacg ccagcagag cccgggtagg ggacacagtg 420
 aggattctgg tccatgggtt tcagaacgaa gtcttcccgg agcccatgtt cacgtggacg 480
 cgggttgagg gccgcctcct ggacggcagc gctgagttcg acgggaagga gctggtgctg 540
 gagcgggttc ccgccgagct caatggctcc atgtatcgct gcaccgcca gaaccactg 600
 ggctccaccg acacgcacac ccggctcatc gtgtttgaaa acccaaatat cccaagagga 660
 acggaggact ctaatgggtc cattggcccc actggtctcg ag 702

<210> 34
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 34
 Gly Ser Tyr Leu Thr Val Asn Ile Glu Pro Leu Pro Pro Val Val Ala
 1 5 10 15
 Gly Asp Ala Val Thr Leu Lys Cys Asn Phe Lys Thr Asp Gly Arg Met
 20 25 30
 Arg Glu Ile Val Trp Tyr Arg Val Thr Asp Gly Gly Thr Ile Lys Gln
 35 40 45
 Lys Ile Phe Thr Phe Asp Ala Met Phe Ser Thr Asn Tyr Ser His Met
 50 55 60
 Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val Tyr Gln Ser Thr Val Arg
 65 70 75 80
 Leu Pro Glu Val Arg Ile Ser Asp Asn Gly Pro Tyr Glu Cys His Val
 85 90 95
 Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys Val Val Leu Ala Ser Gly
 100 105 110
 Asn Ile Phe Leu Asn Val Met Val Ala Pro Lys Gly Pro Lys Ile Val
 115 120 125
 Met Thr Pro Ser Arg Ala Arg Val Gly Asp Thr Val Arg Ile Leu Val
 130 135 140
 His Gly Phe Gln Asn Glu Val Phe Pro Glu Pro Met Phe Thr Trp Thr
 145 150 155 160
 Arg Val Gly Ser Arg Leu Leu Asp Gly Ser Ala Glu Phe Asp Gly Lys
 165 170 175
 Glu Leu Val Leu Glu Arg Val Pro Ala Glu Leu Asn Gly Ser Met Tyr
 180 185 190
 Arg Cys Thr Ala Gln Asn Pro Leu Gly Ser Thr Asp Thr His Thr Arg
 195 200 205
 Leu Ile Val Phe Glu Asn Pro Asn Ile Pro Arg Gly Thr Glu Asp Ser

210

215

220

Asn Gly Ser Ile Gly Pro Thr Gly Leu Glu
 225 230

<210> 35
 <211> 1446
 <212> DNA
 <213> Homo sapiens

<400> 35
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 aaagaagggt tccgggtttt caaagagatg cccttcacaa atccgttaac aaggctctac 120
 cacacgtggg ccaggcccca gtcccagtggtg tgcacacag gcagcaggag ttatagctcc 180
 gtcccagaag cttccccagc tcatacctca aggggaggtc tggttatctc tccagagagc 240
 ctctctccac ctgtcagaga gctgtatcac cggctgaagc acttcatgga gcaacgtgtg 300
 tacctcgcag agccagagct gcagagtcac caggcctcag cagccagggt gagccccctc 360
 ccactgatcg aagacctcaa ggagaaagcc aaagctgaag gactttggaa ccttttccta 420
 cccttagagg ctgatcccga gaaaaaatac ggagcaggac tgaccaatgt ggaatatgca 480
 catctgtgtg agctcatggg cacgtccctg tatgcccccg aggtatgtaa ctgctctgcg 540
 cctgacacgg gcaacatgga gctgctgggtg aggtatggca ccgaagcgca gaaggctcgc 600
 tggctgattc ctctgctgga ggggaaaagcc cgctcctggt ttgctatgac cgagccccag 660
 gttgcctctt cagatgccac caacattgag gcttccatca gagaggagga cagcttctat 720
 gtcataaacg gtcacaaatg gtggatcaca ggcatcctgg atcctcgttg ccaactctgt 780
 gtgtttatgg gaaaaacaga cccacatgca ccaagacacc ggcagcagtc tgtgctcttg 840
 gttcccatgg ataccccagg gataaaaatc atccggcctc tgacgggtga tggactggaa 900
 gatgcaccag gtggccatgg tgaagtccga ttgagcacg tgcgtgtgcc caaagagaac 960
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 atccatcact gcatgaggct gatcgggttc tcagagaggg ccctggcact catgaaggcc 1080
 cgcgtgaagt cccgcttgcc ttttgggaag cccctgggtg agcagggcac agtgctggcg 1140
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 gtcgccccgt ccatggcctc ccgagtgtt gatcgtgcga ttcaggcctt tggagcagca 1320
 ggcttgagca gcgactaccc actggctcag ttcttcacct gggcccgagc cctgcgcttt 1380
 gccgacggcc ctgacgaggt gcaccgggcc acggtggcca agctagagct gaagcaccgc 1440
 atttag 1446

<210> 36
 <211> 452
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Pro Phe Thr Asn Pro Leu Thr Arg Ser Tyr His Thr Trp Ala Arg
 1 5 10 15
 Pro Gln Ser Gln Trp Cys Pro Thr Gly Ser Arg Ser Tyr Ser Ser Val
 20 25 30
 Pro Glu Ala Ser Pro Ala His Thr Ser Arg Gly Gly Leu Val Ile Ser
 35 40 45
 Pro Glu Ser Leu Ser Pro Pro Val Arg Glu Leu Tyr His Arg Leu Lys
 50 55 60

His	Phe	Met	Glu	Gln	Arg	Val	Tyr	Pro	Ala	Glu	Pro	Glu	Leu	Gln	Ser	65	70	75	80
His	Gln	Ala	Ser	Ala	Ala	Arg	Trp	Ser	Pro	Ser	Pro	Leu	Ile	Glu	Asp	85	90	95	
Leu	Lys	Glu	Lys	Ala	Lys	Ala	Glu	Gly	Leu	Trp	Asn	Leu	Phe	Leu	Pro	100	105	110	
Leu	Glu	Ala	Asp	Pro	Glu	Lys	Lys	Tyr	Gly	Ala	Gly	Leu	Thr	Asn	Val	115	120	125	
Glu	Tyr	Ala	His	Leu	Cys	Glu	Leu	Met	Gly	Thr	Ser	Leu	Tyr	Ala	Pro	130	135	140	
Glu	Val	Cys	Asn	Cys	Ser	Ala	Pro	Asp	Thr	Gly	Asn	Met	Glu	Leu	Leu	145	150	155	160
Val	Arg	Tyr	Gly	Thr	Glu	Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	165	170	175	
Leu	Glu	Gly	Lys	Ala	Arg	Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	180	185	190	
Ala	Ser	Ser	Asp	Ala	Thr	Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	195	200	205	
Ser	Phe	Tyr	Val	Ile	Asn	Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	210	215	220	
Asp	Pro	Arg	Cys	Gln	Leu	Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	225	230	235	240
Ala	Pro	Arg	His	Arg	Gln	Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	245	250	255	
Pro	Gly	Ile	Lys	Ile	Ile	Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	260	265	270	
Ala	Pro	Gly	Gly	His	Gly	Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	275	280	285	
Lys	Glu	Asn	Met	Val	Leu	Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	290	295	300	
Gly	Arg	Leu	Gly	Pro	Gly	Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	305	310	315	320
Phe	Ser	Glu	Arg	Ala	Leu	Ala	Leu	Met	Lys	Ala	Arg	Val	Lys	Ser	Arg	325	330	335	
Leu	Ala	Phe	Gly	Lys	Pro	Leu	Val	Glu	Gln	Gly	Thr	Val	Leu	Ala	Asp	340	345	350	
Ile	Ala	Gln	Ser	Arg	Val	Glu	Ile	Glu	Gln	Ala	Arg	Leu	Leu	Val	Leu	355	360	365	

Arg Ala Ala His Leu Met Asp Leu Ala Gly Asn Lys Ala Ala Ala Leu
370 375 380

Asp Ile Ala Met Ile Lys Met Val Ala Pro Ser Met Ala Ser Arg Val
385 390 395 400

Ile Asp Arg Ala Ile Gln Ala Phe Gly Ala Ala Gly Leu Ser Ser Asp
405 410 415

Tyr Pro Leu Ala Gln Phe Phe Thr Trp Ala Arg Ala Leu Arg Phe Ala
420 425 430

Asp Gly Pro Asp Glu Val His Arg Ala Thr Val Ala Lys Leu Glu Leu
435 440 445

Lys His Arg Ile
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<210> 37
<211> 1363
<212> DNA
<213> Homo sapiens

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tacctcaagg ggaggtcttg ttatctctcc agagagcctc tctccacctg tcagagagct 180
gtatcaccgg ctgaagcact tcatggagca acgtgtgtac cctgcagagc cagagctgca 240
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gaaagccaaa gctgaaggac tttggaacct tttcctaccc ttagaggctg atcccgagaa 360
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ggctcagttc ttcacctggg cccgagccct gcgctttgcc gacggccctg acgaggtgca 1320
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<210> 38
<211> 452
<212> PRT
<213> Homo sapiens

<400> 38
Met Pro Phe Thr Asn Pro Leu Thr Arg Ser Tyr His Thr Trp Ala Arg

1	5	10	15
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Pro Glu Ala Ser Pro Ala His Thr Ser Arg Gly Gly Leu Val Ile Ser	35	40	45
Pro Glu Ser Leu Ser Pro Pro Val Arg Glu Leu Tyr His Arg Leu Lys	50	55	60
His Phe Met Glu Gln Arg Val Tyr Pro Ala Glu Pro Glu Leu Gln Ser	65	70	75
His Gln Ala Ser Ala Ala Arg Trp Ser Pro Ser Pro Leu Ile Glu Asp	85	90	95
Leu Lys Glu Lys Ala Lys Ala Glu Gly Leu Trp Asn Leu Phe Leu Pro	100	105	110
Leu Glu Ala Asp Pro Glu Lys Lys Tyr Gly Ala Gly Leu Thr Asn Val	115	120	125
Glu Tyr Ala His Leu Cys Glu Leu Met Gly Thr Ser Leu Tyr Ala Pro	130	135	140
Glu Val Cys Asn Cys Ser Ala Pro Asp Thr Gly Asn Met Glu Leu Leu	145	150	155
Val Arg Tyr Gly Thr Glu Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu	165	170	175
Leu Glu Gly Lys Ala Arg Ser Cys Phe Ala Met Thr Glu Pro Gln Val	180	185	190
Ala Ser Ser Asp Ala Thr Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp	195	200	205
Ser Phe Tyr Val Ile Asn Gly His Lys Trp Trp Ile Thr Gly Ile Leu	210	215	220
Asp Pro Arg Cys Gln Leu Cys Val Phe Met Gly Lys Thr Asp Pro His	225	230	235
Ala Pro Arg His Arg Gln Gln Ser Val Leu Leu Val Pro Met Asp Thr	245	250	255
Pro Gly Ile Lys Ile Ile Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp	260	265	270
Ala Pro Gly Gly His Gly Glu Val Arg Phe Glu His Val Arg Val Pro	275	280	285
Lys Glu Asn Met Val Leu Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln	290	295	300
Gly Arg Leu Gly Pro Gly Arg Ile His His Cys Met Arg Leu Ile Gly			

305 310 315 320
 Phe Ser Glu Arg Ala Leu Ala Leu Met Lys Ala Arg Val Lys Ser Arg
 325 330 335
 Leu Ala Phe Gly Lys Pro Leu Val Glu Gln Gly Thr Val Leu Ala Asp
 340 345 350
 Ile Ala Gln Ser Arg Val Glu Ile Glu Gln Ala Arg Leu Leu Val Leu
 355 360 365
 Arg Ala Ala His Leu Met Asp Leu Ala Gly Asn Lys Ala Ala Ala Leu
 370 375 380
 Asp Ile Ala Met Ile Lys Met Val Ala Pro Ser Met Ala Ser Arg Val
 385 390 395 400
 Ile Asp Arg Ala Ile Gln Ala Phe Gly Ala Ala Gly Leu Ser Ser Asp
 405 410 415
 Tyr Pro Leu Ala Gln Phe Phe Thr Trp Ala Arg Ala Leu Arg Phe Ala
 420 425 430
 Asp Gly Pro Asp Glu Val His Arg Thr Thr Val Ala Lys Leu Glu Leu
 435 440 445
 Lys His Arg Ile
 450

<210> 39

<211> 1380

<212> DNA

<213> Homo sapiens

<400> 39

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 cacacgtggg ccaggcccca gtcccagtggtg tgcacacag gcagcaggag ttatagctcc 180
 gttccagaag cttccccagc tcatacctca aggggaggtc tggttatctc tccagagagc 240
 ctctctccac ctgtcagaga gctgtatcac cggctgaagc acttcatgga gcaacgtgtg 300
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<210> 40
 <211> 404
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Pro Glu Ala Ser Pro Ala His Thr Ser Arg Gly Gly Leu Val Ile Ser
 35 40 45
 Pro Glu Ser Leu Ser Pro Pro Val Arg Glu Leu Tyr His Arg Leu Lys
 50 55 60
 His Phe Met Glu Gln Arg Val Tyr Pro Ala Glu Pro Glu Leu Gln Ser
 65 70 75 80
 His Gln Ala Ser Ala Ala Arg Trp Ser Pro Ser Pro Leu Ile Glu Asp
 85 90 95
 Leu Lys Glu Lys Ala Lys Ala Glu Gly Leu Trp Asn Leu Phe Leu Pro
 100 105 110
 Leu Glu Ala Asp Pro Glu Lys Lys Tyr Gly Ala Gly Leu Thr Asn Val
 115 120 125
 Glu Tyr Ala His Leu Cys Glu Leu Met Gly Thr Ser Leu Tyr Ala Pro
 130 135 140
 Glu Val Cys Asn Cys Ser Ala Pro Asp Thr Gly Asn Met Glu Leu Leu
 145 150 155 160
 Val Arg Tyr Gly Thr Glu Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu
 165 170 175
 Leu Glu Gly Lys Ala Arg Ser Cys Phe Ala Met Thr Glu Pro Gln Val
 180 185 190
 Ala Ser Ser Asp Ala Thr Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp
 195 200 205
 Ser Phe Tyr Val Ile Asn Gly His Lys Trp Trp Ile Thr Gly Ile Leu
 210 215 220
 Asp Pro Arg Cys Gln Leu Cys Val Phe Met Gly Lys Thr Asp Pro His
 225 230 235 240
 Ala Pro Arg His Arg Gln Gln Ser Val Leu Val Val Pro Met Asp Thr
 245 250 255

Pro Gly Ile Lys Ile Ile Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp
 260 265 270

Ala Pro Gly Gly His Gly Glu Val Arg Phe Glu His Val Arg Val Pro
 275 280 285

Lys Glu Asn Met Val Leu Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln
 290 295 300

Gly Arg Leu Gly Pro Gly Arg Ile His His Cys Met Arg Leu Ile Gly
 305 310 315 320

Leu Ser Glu Arg Ala Met Ala Leu Met Lys Ala Arg Ala Ala Ala Leu
 325 330 335

Asp Ile Ala Met Ile Lys Met Val Ala Pro Ser Met Ala Ser Arg Val
 340 345 350

Ile Asp Arg Ala Ile Gln Ala Phe Gly Ala Ala Gly Leu Ser Ser Glu
 355 360 365

Tyr Pro Leu Ala His Phe Phe Thr Trp Ala Arg Ala Leu Arg Phe Ala
 370 375 380

Asp Gly Pro Asp Glu Val His Arg Ala Thr Val Ala Lys Leu Glu Leu
 385 390 395 400

Lys His Arg Ile

<210> 41
 <211> 3490
 <212> DNA
 <213> Homo sapiens

<400> 41
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 aatgttaaag acctccgtgc ctgtggactc atttttctct ctgttgacca gtgagcgagt 360
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 ccggaaacag tttgatgtga ttgtggagtc ctgcatggaa gggatctgta agccagaccc 540
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<210> 42

<211> 1080

<212> PRT

<213> Homo sapiens

<400> 42

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Glu Val Gln Asn Arg Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met
20 25 30

Glu Gly Gly Glu Asn Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile
35 40 45

Thr Ala Glu Gly Phe Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met
 50 55 60

Leu Lys Thr Ser Val Pro Val Asp Ser Phe Phe Ser Leu Leu Thr Ser
 65 70 75 80

Glu Arg Val Ala Lys Gln Phe Pro Val Met Thr Glu Ala Ile Thr Gln
 85 90 95

Ile Arg Ala Lys Gly Leu Gln Thr Ala Val Leu Ser Asn Asn Phe Tyr
 100 105 110

Leu Pro Asn Gln Lys Ser Phe Leu Pro Leu Asp Arg Lys Gln Phe Asp
 115 120 125

Val Ile Val Glu Ser Cys Met Glu Gly Ile Cys Lys Pro Asp Pro Arg
 130 135 140

Ile Tyr Lys Leu Cys Leu Glu Gln Leu Gly Leu Gln Pro Ser Glu Ser
 145 150 155 160

Ile Phe Leu Asp Asp Leu Gly Thr Asn Leu Lys Glu Ala Ala Arg Leu
 165 170 175

Gly Ile His Thr Ile Lys Val Asn Asp Pro Glu Thr Ala Val Lys Glu
 180 185 190

Leu Glu Ala Leu Leu Gly Phe Thr Leu Arg Val Gly Val Pro Asn Thr
 195 200 205

Arg Pro Val Lys Lys Thr Met Glu Ile Pro Lys Asp Ser Leu Gln Lys
 210 215 220

Tyr Leu Lys Asp Leu Leu Gly Ile Gln Thr Thr Gly Pro Leu Glu Leu
 225 230 235 240

Leu Gln Phe Asp His Gly Gln Ser Asn Pro Thr Tyr Tyr Ile Arg Leu
 245 250 255

Ala Asn Arg Asp Leu Val Leu Arg Lys Lys Pro Pro Gly Thr Leu Leu
 260 265 270

Pro Ser Ala His Ala Ile Glu Arg Glu Phe Arg Ile Met Lys Ala Leu
 275 280 285

Ala Asn Ala Gly Val Pro Val Pro Asn Val Leu Asp Leu Cys Glu Asp
 290 295 300

Ser Ser Val Ile Gly Thr Pro Phe Tyr Val Met Glu Tyr Cys Pro Gly
 305 310 315 320

Leu Ile Tyr Lys Asp Pro Ser Leu Pro Gly Leu Glu Pro Ser His Arg
 325 330 335

Arg Ala Ile Tyr Thr Ala Met Asn Thr Val Leu Cys Lys Ile His Ser
 340 345 350

Val Asp Leu Gln Ala Val Gly Leu Glu Asp Tyr Gly Lys Gln Gly Asp
 355 360 365
 Tyr Ile Pro Arg Gln Val Arg Thr Trp Val Lys Gln Tyr Arg Ala Ser
 370 375 380
 Glu Thr Ser Thr Ile Pro Ala Met Glu Arg Leu Ile Glu Trp Leu Pro
 385 390 395 400
 Leu His Leu Pro Arg Gln Gln Arg Thr Thr Val Val His Gly Asp Phe
 405 410 415
 Arg Leu Asp Asn Leu Val Phe His Pro Glu Glu Pro Glu Val Leu Ala
 420 425 430
 Val Leu Asp Trp Glu Leu Ser Thr Leu Gly Asp Pro Leu Ala Asp Val
 435 440 445
 Ala Tyr Ser Cys Leu Ala His Tyr Leu Pro Ser Ser Phe Pro Val Leu
 450 455 460
 Arg Gly Ile Asn Asp Cys Asp Leu Thr Gln Leu Gly Ile Pro Ala Ala
 465 470 475 480
 Glu Glu Tyr Phe Arg Met Tyr Cys Leu Gln Met Gly Leu Pro Pro Thr
 485 490 495
 Glu Asn Trp Asn Phe Tyr Met Ala Phe Ser Phe Phe Arg Val Ala Ala
 500 505 510
 Ile Leu Gln Gly Val Tyr Lys Arg Ser Leu Thr Gly Gln Ala Ser Ser
 515 520 525
 Thr Tyr Ala Glu Gln Thr Gly Lys Leu Thr Glu Phe Val Ser Asn Leu
 530 535 540
 Ala Trp Asp Phe Ala Val Lys Glu Gly Phe Arg Val Phe Lys Glu Met
 545 550 555 560
 Pro Phe Thr Asn Pro Leu Thr Arg Ser Tyr His Thr Trp Ala Arg Pro
 565 570 575
 Gln Ser Gln Trp Cys Pro Ile Gly Ser Arg Ser Tyr Ser Ser Val Pro
 580 585 590
 Glu Ala Ser Pro Ala His Thr Ser Arg Gly Gly Leu Val Ile Ser Pro
 595 600 605
 Glu Ser Leu Ser Pro Pro Val Arg Glu Leu Tyr His Arg Leu Lys His
 610 615 620
 Phe Met Glu Gln Arg Val Tyr Pro Ala Glu Pro Glu Leu Gln Ser His
 625 630 635 640
 Gln Ala Ser Ala Ala Arg Trp Ser Pro Ser Pro Leu Ile Glu Asp Leu
 645 650 655

Lys Glu Lys Ala Lys Ala Glu Gly Leu Trp Asn Leu Phe Leu Pro Leu
 660 665 670
 Glu Ala Asp Pro Glu Lys Lys Tyr Gly Ala Gly Leu Thr Asn Val Glu
 675 680 685
 Tyr Ala His Leu Cys Glu Leu Met Gly Thr Ser Leu Tyr Ala Pro Glu
 690 695 700
 Val Cys Asn Cys Ser Ala Pro Asp Thr Gly Asn Met Glu Leu Leu Val
 705 710 715 720
 Arg Tyr Gly Thr Glu Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu
 725 730 735
 Glu Gly Lys Ala Arg Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala
 740 745 750
 Ser Ser Asp Ala Thr Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser
 755 760 765
 Phe Tyr Val Ile Asn Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp
 770 775 780
 Pro Arg Cys Gln Leu Cys Val Phe Met Gly Lys Thr Asp Pro His Ala
 785 790 795 800
 Pro Arg His Arg Gln Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro
 805 810 815
 Gly Ile Lys Ile Ile Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala
 820 825 830
 Pro Gly Gly His Gly Glu Val Arg Phe Glu His Val Arg Val Pro Lys
 835 840 845
 Glu Asn Met Val Leu Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly
 850 855 860
 Arg Leu Gly Pro Gly Arg Ile His His Cys Met Arg Leu Ile Gly Phe
 865 870 875 880
 Ser Glu Arg Ala Leu Ala Leu Met Lys Ala Arg Val Lys Ser Arg Leu
 885 890 895
 Ala Phe Gly Lys Pro Leu Val Glu Gln Gly Thr Val Leu Ala Asp Ile
 900 905 910
 Ala Gln Ser Arg Val Glu Ile Glu Gln Ala Arg Leu Leu Val Leu Arg
 915 920 925
 Ala Ala His Leu Met Asp Leu Ala Gly Asn Lys Ala Ala Ala Leu Asp
 930 935 940
 Ile Ala Met Ile Lys Met Val Ala Pro Ser Met Ala Ser Arg Val Ile
 945 950 955 960

Asp Arg Ala Ile Gln Lys Thr Ser Leu Gln Glu Ala Trp Ser Leu Phe
 965 970 975

Gln Ala Arg Arg Arg Gly Phe Ala Glu Gly Gln Gly Gly Ser Gly Thr
 980 985 990

Glu Ser Gly Lys Leu Val Phe Arg Leu Ser Val Pro Gly Trp Ala Gly
 995 1000 1005

Thr Val Thr Ser Leu Gln Pro Phe Ser Pro Ser Leu Ser Ala Cys Gly
 1010 1015 1020

Asn Leu Asp Thr Phe Trp Glu Ala Ser Gln Gly Cys Gly Thr Cys Leu
 1025 1030 1035 1040

Leu Trp Gln Leu Gln Gly Ser Cys Leu Ala Ser Leu Val Ser Arg Gly
 1045 1050 1055

Ala Ala Thr Ala Gly Gly Gly Leu Glu Thr Gln Asp Leu Gly Ala Trp
 1060 1065 1070

Glu Asn Gly Met Gln Pro Thr Leu
 1075 1080

<210> 43
 <211> 638
 <212> PRT
 <213> Homo sapiens

<400> 43
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 35 40 45

Thr Ala Gly Asp Lys Leu Gln Pro Ser Pro Pro Pro Leu Ser Pro Pro
 50 55 60

Pro Arg Ala Pro Pro Leu Ser Pro Gly Pro Gly Gly Cys Phe Glu Gly
 65 70 75 80

Gly Ala Gly Asn Cys Ser Ser Arg Gly Gly Arg Ala Ser Asp His Pro
 85 90 95

Gly Gly Gly Arg Glu Phe Phe Phe Asp Arg His Pro Gly Val Phe Ala
 100 105 110

Tyr Val Leu Asn Tyr Tyr Arg Thr Gly Lys Leu His Cys Pro Ala Asp
 115 120 125

Val Cys Gly Pro Leu Phe Glu Glu Glu Leu Ala Phe Trp Gly Ile Asp
 130 135 140

Glu Thr Asp Val Glu Pro Cys Cys Trp Met Thr Tyr Arg Gln His Arg
 145 150 155 160
 Asp Ala Glu Glu Ala Leu Asp Ile Phe Glu Thr Pro Asp Leu Ile Gly
 165 170 175
 Gly Asp Pro Gly Asp Asp Glu Asp Leu Ala Ala Lys Arg Leu Gly Ile
 180 185 190
 Glu Asp Ala Ala Gly Leu Gly Gly Pro Asp Gly Lys Ser Gly Arg Trp
 195 200 205
 Arg Arg Leu Gln Pro Arg Met Trp Ala Leu Phe Glu Asp Pro Tyr Ser
 210 215 220
 Ser Arg Ala Ala Arg Phe Ile Ala Phe Ala Ser Leu Phe Phe Ile Leu
 225 230 235 240
 Val Ser Ile Thr Thr Phe Cys Leu Glu Thr His Glu Ala Phe Asn Ile
 245 250 255
 Val Lys Asn Lys Thr Glu Pro Val Ile Asn Gly Thr Ser Val Val Leu
 260 265 270
 Gln Tyr Glu Ile Glu Thr Asp Pro Ala Leu Thr Tyr Val Glu Gly Val
 275 280 285
 Cys Val Val Trp Phe Thr Phe Glu Phe Leu Val Arg Ile Val Phe Ser
 290 295 300
 Pro Asn Lys Leu Glu Phe Ile Lys Asn Leu Leu Asn Ile Ile Asp Phe
 305 310 315 320
 Val Ala Ile Leu Pro Phe Tyr Leu Glu Val Gly Leu Ser Gly Leu Ser
 325 330 335
 Ser Lys Ala Ala Lys Asp Val Leu Gly Phe Leu Arg Val Val Arg Phe
 340 345 350
 Val Arg Ile Leu Arg Ile Phe Lys Leu Thr Arg His Phe Val Gly Leu
 355 360 365
 Arg Val Leu Gly His Thr Leu Arg Ala Ser Thr Asn Glu Phe Leu Leu
 370 375 380
 Leu Ile Ile Phe Leu Ala Leu Gly Val Leu Ile Phe Ala Thr Met Ile
 385 390 395 400
 Tyr Tyr Ala Glu Arg Val Gly Ala Gln Pro Asn Asp Pro Ser Ala Ser
 405 410 415
 Glu His Thr Gln Phe Lys Asn Ile Pro Ile Gly Phe Trp Trp Ala Val
 420 425 430
 Val Thr Met Thr Thr Leu Gly Tyr Gly Asp Met Tyr Pro Gln Thr Trp
 435 440 445

Ser Gly Met Leu Val Gly Ala Leu Cys Ala Leu Ala Gly Val Leu Thr
 450 455 460

Ile Ala Met Pro Val Pro Val Ile Val Asn Asn Phe Gly Met Tyr Tyr
 465 470 475 480

Ser Leu Ala Met Ala Lys Gln Lys Leu Pro Arg Lys Arg Lys Lys His
 485 490 495

Ile Pro Pro Ala Pro Gln Ala Ser Ser Pro Thr Phe Cys Lys Thr Glu
 500 505 510

Leu Asn Met Ala Cys Asn Ser Thr Gln Ser Asp Thr Cys Leu Gly Lys
 515 520 525

Asp Asn Arg Leu Leu Glu His Asn Arg Ser Val Leu Ser Gly Asp Asp
 530 535 540

Ser Thr Gly Ser Glu Pro Pro Leu Ser Pro Pro Glu Arg Leu Pro Ile
 545 550 555 560

Arg Arg Ser Ser Thr Arg Asp Lys Asn Arg Arg Gly Glu Thr Cys Phe
 565 570 575

Leu Leu Thr Thr Gly Asp Tyr Thr Cys Ala Ser Asp Gly Gly Ile Arg
 580 585 590

Lys Gly Tyr Glu Lys Ser Arg Ser Leu Asn Asn Ile Ala Gly Leu Ala
 595 600 605

Gly Asn Ala Leu Arg Leu Ser Pro Val Thr Ser Pro Tyr Asn Ser Pro
 610 615 620

Cys Pro Leu Arg Arg Ser Arg Ser Pro Ile Pro Ser Ile Leu
 625 630 635

<210> 44

<211> 638

<212> PRT

<213> Rattus norvegicus

<400> 44

Met Gly Lys Ile Glu Asn Asn Glu Arg Val Ile Leu Asn Val Gly Gly
 1 5 10 15

Thr Arg His Glu Thr Tyr Arg Ser Thr Leu Lys Thr Leu Pro Gly Thr
 20 25 30

Arg Leu Ala Leu Leu Ala Ser Ser Glu Pro Gln Gly Asp Cys Leu Thr
 35 40 45

Ala Ala Gly Asp Lys Leu Gln Pro Leu Pro Pro Pro Leu Ser Pro Pro
 50 55 60

Pro Arg Pro Pro Pro Leu Ser Pro Val Pro Ser Gly Cys Phe Glu Gly

65		70		75		80
Gly Ala Gly Asn Cys Ser Ser His Gly Gly Asn Gly Ser Asp His Pro						
	85			90		95
Gly Gly Gly Arg Glu Phe Phe Phe Asp Arg His Pro Gly Val Phe Ala						
	100			105		110
Tyr Val Leu Asn Tyr Tyr Arg Thr Gly Lys Leu His Cys Pro Ala Asp						
	115			120		125
Val Cys Gly Pro Leu Phe Glu Glu Glu Leu Ala Phe Trp Gly Ile Asp						
	130			135		140
Glu Thr Asp Val Glu Pro Cys Cys Trp Met Thr Tyr Arg Gln His Arg						
	145			150		155
Asp Ala Glu Glu Ala Leu Asp Ile Phe Glu Thr Pro Asp Leu Ile Gly						
	165			170		175
Gly Asp Pro Gly Asp Asp Glu Asp Leu Gly Gly Lys Arg Leu Gly Ile						
	180			185		190
Glu Asp Ala Ala Gly Leu Gly Gly Pro Asp Gly Lys Ser Gly Arg Trp						
	195			200		205
Arg Lys Leu Gln Pro Arg Met Trp Ala Leu Phe Glu Asp Pro Tyr Ser						
	210			215		220
Ser Arg Ala Ala Arg Phe Ile Ala Phe Ala Ser Leu Phe Phe Ile Leu						
	225			230		235
Val Ser Ile Thr Thr Phe Cys Leu Glu Thr His Glu Ala Phe Asn Ile						
	245			250		255
Val Lys Asn Lys Thr Glu Pro Val Ile Asn Gly Thr Ser Ala Val Leu						
	260			265		270
Gln Tyr Glu Ile Glu Thr Asp Pro Ala Leu Thr Tyr Val Glu Gly Val						
	275			280		285
Cys Val Val Trp Phe Thr Phe Glu Phe Leu Val Arg Ile Val Phe Ser						
	290			295		300
Pro Asn Lys Leu Glu Phe Ile Lys Asn Leu Leu Asn Ile Ile Asp Phe						
	305			310		315
Val Ala Ile Leu Pro Phe Tyr Leu Glu Val Gly Leu Ser Gly Leu Ser						
	325			330		335
Ser Lys Ala Ala Lys Asp Val Leu Gly Phe Leu Arg Val Val Arg Phe						
	340			345		350
Val Arg Ile Leu Arg Ile Phe Lys Leu Thr Arg His Phe Val Gly Leu						
	355			360		365
Arg Val Leu Gly His Thr Leu Arg Ala Ser Thr Asn Glu Phe Leu Leu						

370					375					380					
Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Val	Leu	Ile	Phe	Ala	Thr	Met	Ile
385					390					395					400
Tyr	Tyr	Ala	Glu	Arg	Val	Gly	Ala	Gln	Pro	Asn	Asp	Pro	Ser	Ala	Ser
				405					410					415	
Glu	His	Thr	Gln	Phe	Lys	Asn	Ile	Pro	Ile	Gly	Phe	Trp	Trp	Ala	Val
			420					425					430		
Val	Thr	Met	Thr	Thr	Leu	Gly	Tyr	Gly	Asp	Met	Tyr	Pro	Gln	Thr	Trp
		435					440						445		
Ser	Gly	Met	Leu	Val	Gly	Ala	Leu	Cys	Ala	Leu	Ala	Gly	Val	Leu	Thr
	450					455					460				
Ile	Ala	Met	Pro	Val	Pro	Val	Ile	Val	Asn	Asn	Phe	Gly	Met	Tyr	Tyr
465					470				475					480	
Ser	Leu	Ala	Met	Ala	Lys	Gln	Lys	Leu	Pro	Arg	Lys	Arg	Lys	Lys	His
				485				490						495	
Ile	Pro	Pro	Ala	Pro	Leu	Ala	Ser	Ser	Pro	Thr	Phe	Cys	Lys	Thr	Glu
			500					505					510		
Leu	Asn	Met	Ala	Cys	Asn	Ser	Thr	Gln	Ser	Asp	Thr	Cys	Leu	Gly	Lys
		515					520					525			
Glu	Asn	Arg	Leu	Leu	Glu	His	Asn	Arg	Ser	Val	Leu	Ser	Gly	Asp	Asp
	530					535					540				
Ser	Thr	Gly	Ser	Glu	Pro	Pro	Leu	Ser	Pro	Pro	Glu	Arg	Leu	Pro	Ile
545					550				555					560	
Arg	Arg	Ser	Ser	Thr	Arg	Asp	Lys	Asn	Arg	Arg	Gly	Glu	Thr	Cys	Phe
				565				570						575	
Leu	Leu	Thr	Thr	Gly	Asp	Tyr	Thr	Cys	Ala	Ser	Asp	Gly	Gly	Ile	Arg
			580					585					590		
Lys	Gly	Tyr	Glu	Lys	Ser	Arg	Ser	Leu	Asn	Asn	Ile	Ala	Gly	Leu	Ala
		595					600				605				
Gly	Asn	Ala	Leu	Arg	Leu	Ser	Pro	Val	Thr	Ser	Pro	Tyr	Asn	Ser	Pro
	610					615					620				
Cys	Pro	Leu	Arg	Arg	Ser	Arg	Ser	Pro	Ile	Pro	Ser	Ile	Leu		
625					630				635						

<210> 45

<211> 613

<212> PRT

<213> Homo sapiens

<400> 45

Met Gly Lys Ile Glu Asn Asn Glu Arg Val Ile Leu Asn Val Gly Gly
 1 5 10 15
 Thr Arg His Glu Thr Tyr Arg Ser Thr Leu Lys Thr Leu Pro Gly Thr
 20 25 30
 Arg Leu Ala Leu Leu Ala Ser Ser Glu Pro Pro Gly Asp Cys Leu Thr
 35 40 45
 Thr Ala Gly Asp Lys Leu Gln Pro Ser Pro Pro Pro Leu Ser Pro Pro
 50 55 60
 Pro Arg Ala Pro Pro Leu Ser Pro Gly Pro Gly Gly Cys Phe Glu Gly
 65 70 75 80
 Gly Ala Gly Asn Cys Ser Ser Arg Gly Gly Arg Ala Ser Asp His Pro
 85 90 95
 Gly Gly Gly Arg Glu Phe Phe Phe Asp Arg His Pro Gly Val Phe Ala
 100 105 110
 Tyr Val Leu Asn Tyr Tyr Arg Thr Gly Lys Leu His Cys Pro Ala Asp
 115 120 125
 Val Cys Gly Pro Leu Phe Glu Glu Glu Leu Ala Phe Trp Gly Ile Asp
 130 135 140
 Glu Thr Asp Val Glu Pro Cys Cys Trp Met Thr Tyr Arg Gln His Arg
 145 150 155 160
 Asp Ala Glu Glu Ala Leu Asp Ile Phe Glu Thr Pro Asp Leu Ile Gly
 165 170 175
 Gly Asp Pro Gly Asp Asp Glu Asp Leu Ala Ala Lys Arg Leu Gly Ile
 180 185 190
 Glu Asp Ala Ala Gly Leu Gly Gly Pro Asp Gly Lys Ser Gly Arg Trp
 195 200 205
 Arg Arg Leu Gln Pro Arg Met Trp Ala Leu Phe Glu Asp Pro Tyr Ser
 210 215 220
 Ser Arg Ala Ala Arg Phe Ile Ala Phe Ala Ser Leu Phe Phe Ile Leu
 225 230 235 240
 Val Ser Ile Thr Thr Phe Cys Leu Glu Thr His Glu Ala Phe Asn Ile
 245 250 255
 Val Lys Asn Lys Thr Glu Pro Val Ile Asn Gly Thr Ser Val Val Leu
 260 265 270
 Gln Tyr Glu Ile Glu Thr Asp Pro Ala Leu Thr Tyr Val Glu Gly Val
 275 280 285
 Cys Val Val Trp Phe Thr Phe Glu Phe Leu Val Arg Ile Val Phe Ser
 290 295 300

Pro Asn Lys Leu Glu Phe Ile Lys Asn Leu Leu Asn Ile Ile Asp Phe
 305 310 315 320
 Val Ala Ile Leu Pro Phe Tyr Leu Glu Val Gly Leu Ser Gly Leu Ser
 325 330 335
 Ser Lys Ala Ala Lys Asp Val Leu Gly Phe Leu Arg Val Val Arg Phe
 340 345 350
 Val Arg Ile Leu Arg Ile Phe Lys Leu Thr Arg His Phe Val Gly Leu
 355 360 365
 Arg Val Leu Gly His Thr Leu Arg Ala Ser Thr Asn Glu Phe Leu Leu
 370 375 380
 Leu Ile Ile Phe Leu Ala Leu Gly Val Leu Ile Phe Ala Thr Met Ile
 385 390 395 400
 Tyr Tyr Ala Glu Arg Val Gly Ala Gln Pro Asn Asp Pro Ser Ala Ser
 405 410 415
 Glu His Thr Gln Phe Lys Asn Ile Pro Ile Gly Phe Trp Trp Ala Val
 420 425 430
 Val Thr Met Thr Thr Leu Gly Tyr Gly Asp Met Tyr Pro Gln Thr Trp
 435 440 445
 Ser Gly Met Leu Val Gly Ala Leu Cys Ala Leu Ala Gly Val Leu Thr
 450 455 460
 Ile Ala Met Pro Val Pro Val Ile Val Asn Asn Phe Gly Met Tyr Tyr
 465 470 475 480
 Ser Leu Ala Met Ala Lys Gln Lys Leu Pro Arg Lys Arg Lys Lys His
 485 490 495
 Ile Pro Pro Ala Pro Gln Ala Ser Ser Pro Thr Phe Cys Lys Thr Glu
 500 505 510
 Leu Asn Met Ala Cys Asn Ser Thr Gln Ser Asp Thr Cys Leu Gly Lys
 515 520 525
 Asp Asn Arg Leu Leu Glu His Asn Arg Ser Val Leu Ser Gly Asp Asp
 530 535 540
 Ser Thr Gly Ser Glu Pro Pro Leu Ser Pro Pro Glu Arg Leu Pro Ile
 545 550 555 560
 Arg Arg Ser Ser Thr Arg Asp Lys Asn Arg Arg Gly Glu Thr Cys Phe
 565 570 575
 Leu Leu Thr Thr Gly Asp Tyr Thr Cys Ala Ser Asp Gly Gly Ile Arg
 580 585 590
 Lys Asp Asn Cys Lys Glu Val Val Ile Thr Gly Tyr Thr Gln Ala Glu
 595 600 605

Ala Arg Ser Leu Thr
610

<210> 46
<211> 613
<212> PRT
<213> Rattus norvegicus

<400> 46
Met Gly Lys Ile Glu Asn Asn Glu Arg Val Ile Leu Asn Val Gly Gly
1 5 10 15

Thr Arg His Glu Thr Tyr Arg Ser Thr Leu Lys Thr Leu Pro Gly Thr
20 25 30

Arg Leu Ala Leu Leu Ala Ser Ser Glu Pro Gln Gly Asp Cys Leu Thr
35 40 45

Ala Ala Gly Asp Lys Leu Gln Pro Leu Pro Pro Pro Leu Ser Pro Pro
50 55 60

Pro Arg Pro Pro Pro Leu Ser Pro Val Pro Ser Gly Cys Phe Glu Gly
65 70 75 80

Gly Ala Gly Asn Cys Ser Ser His Gly Gly Asn Gly Ser Asp His Pro
85 90 95

Gly Gly Gly Arg Glu Phe Phe Phe Asp Arg His Pro Gly Val Phe Ala
100 105 110

Tyr Val Leu Asn Tyr Tyr Arg Thr Gly Lys Leu His Cys Pro Ala Asp
115 120 125

Val Cys Gly Pro Leu Phe Glu Glu Glu Leu Ala Phe Trp Gly Ile Asp
130 135 140

Glu Thr Asp Val Glu Pro Cys Cys Trp Met Thr Tyr Arg Gln His Arg
145 150 155 160

Asp Ala Glu Glu Ala Leu Asp Ile Phe Glu Thr Pro Asp Leu Ile Gly
165 170 175

Gly Asp Pro Gly Asp Asp Glu Asp Leu Gly Gly Lys Arg Leu Gly Ile
180 185 190

Glu Asp Ala Ala Gly Leu Gly Gly Pro Asp Gly Lys Ser Gly Arg Trp
195 200 205

Arg Lys Leu Gln Pro Arg Met Trp Ala Leu Phe Glu Asp Pro Tyr Ser
210 215 220

Ser Arg Ala Ala Arg Phe Ile Ala Phe Ala Ser Leu Phe Phe Ile Leu
225 230 235 240

Val Ser Ile Thr Thr Phe Cys Leu Glu Thr His Glu Ala Phe Asn Ile
245 250 255

Val Lys Asn Lys Thr Glu Pro Val Ile Asn Gly Thr Ser Ala Val Leu
 260 265 270
 Gln Tyr Glu Ile Glu Thr Asp Pro Ala Leu Thr Tyr Val Glu Gly Val
 275 280 285
 Cys Val Val Trp Phe Thr Phe Glu Phe Leu Val Arg Ile Val Phe Ser
 290 295 300
 Pro Asn Lys Leu Glu Phe Ile Lys Asn Leu Leu Asn Ile Ile Asp Phe
 305 310 315 320
 Val Ala Ile Leu Pro Phe Tyr Leu Glu Val Gly Leu Ser Gly Leu Ser
 325 330 335
 Ser Lys Ala Ala Lys Asp Val Leu Gly Phe Leu Arg Val Val Arg Phe
 340 345 350
 Val Arg Ile Leu Arg Ile Phe Lys Leu Thr Arg His Phe Val Gly Leu
 355 360 365
 Arg Val Leu Gly His Thr Leu Arg Ala Ser Thr Asn Glu Phe Leu Leu
 370 375 380
 Leu Ile Ile Phe Leu Ala Leu Gly Val Leu Ile Phe Ala Thr Met Ile
 385 390 395 400
 Tyr Tyr Ala Glu Arg Val Gly Ala Gln Pro Asn Asp Pro Ser Ala Ser
 405 410 415
 Glu His Thr Gln Phe Lys Asn Ile Pro Ile Gly Phe Trp Trp Ala Val
 420 425 430
 Val Thr Met Thr Thr Leu Gly Tyr Gly Asp Met Tyr Pro Gln Thr Trp
 435 440 445
 Ser Gly Met Leu Val Gly Ala Leu Cys Ala Leu Ala Gly Val Leu Thr
 450 455 460
 Ile Ala Met Pro Val Pro Val Ile Val Asn Asn Phe Gly Met Tyr Tyr
 465 470 475 480
 Ser Leu Ala Met Ala Lys Gln Lys Leu Pro Arg Lys Arg Lys Lys His
 485 490 495
 Ile Pro Pro Ala Pro Leu Ala Ser Ser Pro Thr Phe Cys Lys Thr Glu
 500 505 510
 Leu Asn Met Ala Cys Asn Ser Thr Gln Ser Asp Thr Cys Leu Gly Lys
 515 520 525
 Glu Asn Arg Leu Leu Glu His Asn Arg Ser Val Leu Ser Gly Asp Asp
 530 535 540
 Ser Thr Gly Ser Glu Pro Pro Leu Ser Pro Pro Glu Arg Leu Pro Ile
 545 550 555 560

Arg Arg Ser Ser Thr Arg Asp Lys Asn Arg Arg Gly Glu Thr Cys Phe
565 570 575

Leu Leu Thr Thr Gly Asp Tyr Thr Cys Ala Ser Asp Gly Gly Ile Arg
580 585 590

Lys Asp Asn Cys Lys Asp Val Val Ile Thr Gly Tyr Thr Gln Ala Glu
595 600 605

Ala Arg Ser Leu Thr
610

<210> 47

<211> 624

<212> PRT

<213> Rattus norvegicus

<400> 47

Met Ser Lys Ile Glu Asn Asn Glu Arg Val Ile Leu Asn Val Gly Gly
1 5 10 15

Thr Arg His Glu Thr Tyr Arg Ser Thr Leu Lys Thr Leu Pro Gly Thr
20 25 30

Arg Leu Ala Leu Leu Ala Ser Ser Glu Pro Gln Gly Asp Cys Leu Thr
35 40 45

Ala Ala Gly Asp Lys Leu Gln Pro Leu Pro Pro Pro Leu Ser Pro Pro
50 55 60

Pro Arg Pro Pro Pro Leu Ser Pro Val Pro Ser Gly Cys Phe Glu Gly
65 70 75 80

Gly Ala Gly Asn Cys Ser Ser His Gly Gly Asn Gly Ser Asp His Pro
85 90 95

Gly Gly Gly Arg Glu Phe Phe Phe Asp Arg His Pro Gly Val Phe Ala
100 105 110

Tyr Val Leu Asn Tyr Tyr Arg Thr Gly Lys Leu His Cys Pro Ala Asp
115 120 125

Val Cys Gly Pro Leu Phe Glu Glu Glu Leu Ala Phe Trp Gly Ile Asp
130 135 140

Glu Thr Asp Val Glu Pro Cys Cys Trp Met Thr Tyr Arg Gln His Arg
145 150 155 160

Asp Ala Glu Glu Ala Leu Asp Ile Phe Glu Thr Pro Asp Leu Ile Gly
165 170 175

Gly Asp Pro Gly Asp Asp Glu Asp Leu Gly Gly Lys Arg Leu Gly Ile
180 185 190

Glu Asp Ala Ala Gly Leu Gly Gly Pro Asp Gly Lys Ser Gly Arg Trp

195					200					205					
Arg	Lys	Leu	Gln	Pro	Arg	Met	Trp	Ala	Leu	Phe	Glu	Asp	Pro	Tyr	Ser
210					215					220					
Ser	Arg	Ala	Ala	Arg	Phe	Ile	Ala	Phe	Ala	Ser	Leu	Phe	Phe	Ile	Leu
225					230					235					240
Val	Ser	Ile	Thr	Thr	Phe	Cys	Leu	Glu	Thr	His	Glu	Ala	Phe	Asn	Ile
				245					250					255	
Val	Lys	Asn	Lys	Thr	Glu	Pro	Val	Ile	Asn	Gly	Thr	Ser	Ala	Val	Leu
			260					265					270		
Gln	Tyr	Glu	Ile	Glu	Thr	Asp	Pro	Ala	Leu	Thr	Tyr	Val	Glu	Gly	Val
		275					280					285			
Cys	Val	Val	Trp	Phe	Thr	Phe	Glu	Phe	Leu	Val	Arg	Ile	Val	Phe	Ser
	290					295					300				
Pro	Asn	Lys	Leu	Glu	Phe	Ile	Lys	Asn	Leu	Leu	Asn	Ile	Ile	Asp	Phe
305					310					315					320
Val	Ala	Ile	Leu	Pro	Phe	Tyr	Leu	Glu	Val	Gly	Leu	Ser	Gly	Leu	Ser
				325					330					335	
Ser	Lys	Ala	Ala	Lys	Asp	Val	Leu	Gly	Phe	Leu	Arg	Val	Val	Arg	Phe
			340					345					350		
Val	Arg	Ile	Leu	Arg	Ile	Phe	Lys	Leu	Thr	Arg	His	Phe	Val	Gly	Leu
		355					360					365			
Arg	Val	Leu	Gly	His	Thr	Leu	Arg	Ala	Ser	Thr	Asn	Glu	Phe	Leu	Leu
	370					375					380				
Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Val	Leu	Ile	Phe	Ala	Thr	Met	Ile
385				390						395					400
Tyr	Tyr	Ala	Glu	Arg	Val	Gly	Ala	Gln	Pro	Asn	Asp	Pro	Ser	Ala	Ser
				405					410					415	
Glu	His	Thr	Gln	Phe	Lys	Asn	Ile	Pro	Ile	Gly	Phe	Trp	Trp	Ala	Val
			420					425					430		
Val	Thr	Met	Thr	Thr	Leu	Gly	Tyr	Gly	Asp	Met	Tyr	Pro	Gln	Thr	Trp
		435					440					445			
Ser	Gly	Met	Leu	Val	Gly	Ala	Leu	Cys	Ala	Leu	Ala	Gly	Val	Leu	Thr
	450					455					460				
Ile	Ala	Met	Pro	Val	Pro	Val	Ile	Val	Asn	Asn	Phe	Gly	Met	Tyr	Tyr
465						470					475				480
Ser	Leu	Ala	Met	Ala	Lys	Gln	Lys	Leu	Pro	Arg	Lys	Arg	Lys	Lys	His
				485					490					495	
Ile	Pro	Pro	Ala	Pro	Leu	Ala	Ser	Ser	Pro	Thr	Phe	Cys	Lys	Thr	Glu

<210> 49
<211> 185

<212> PRT

<213> Homo sapiens

<400> 49

Leu Glu Ile Leu Asp Tyr Val Phe Thr Val Ile Phe Thr Leu Glu Met
 1 5 10 15

Leu Leu Lys Phe Ile Ala Leu Gly Phe Lys Leu Lys Tyr Leu Arg Ser
 20 25 30

Pro Trp Asn Ile Leu Asp Phe Leu Ile Val Leu Pro Ser Leu Ile Asp
 35 40 45

Leu Ile Leu Phe Leu Ser Gly Gly Gly Ser Val Leu Arg Leu Leu Arg
 50 55 60

Leu Leu Arg Leu Leu Arg Leu Leu Arg Arg Leu Glu Gly Leu Arg Thr
 65 70 75 80

Leu Leu Gln Ser Leu Gly Arg Ser Leu Lys Ser Leu Leu Asn Leu Leu
 85 90 95

Leu Leu Leu Leu Leu Leu Phe Ile Phe Ala Ile Ile Gly Val Gln
 100 105 110

Leu Phe Gly Gly Glu Phe Asn Lys Cys Cys Asp Gly Val Asn Pro Ile
 115 120 125

Asn Gly Asn Ser Asn Phe Asp Ser Phe Gly Glu Ala Phe Tyr Trp Leu
 130 135 140

Phe Arg Thr Leu Thr Thr Glu Gly Trp Gly Asp Ile Met Pro Asp Thr
 145 150 155 160

Leu Asp Ala Pro Val Leu Gly Lys Ile Phe Phe Val Ile Phe Ile Ile
 165 170 175

Leu Gly Gly Leu Leu Leu Leu Asn Leu
 180 185

<210> 50

<211> 95

<212> PRT

<213> Homo sapiens

<400> 50

Val Thr Leu Asn Val Gly Gly Lys Lys Phe His Ala His Lys Ala Val
 1 5 10 15

Leu Ala Ala His Ser Pro Tyr Phe Lys Ala Leu Phe Ser Ser Asp Phe
 20 25 30

Lys Glu Ser Asp Lys Ser Glu Ile Tyr Leu Phe Asp Val Ser Pro Glu
 35 40 45

Asp Phe Arg Ala Leu Leu Asn Phe Leu Tyr Thr Gly Lys Leu Asp Ile

50 55 60
 Pro Glu Glu Asn Val Glu Glu Leu Leu Glu Leu Ala Asp Tyr Leu Gln
 65 70 75 80
 Ile Pro Gly Leu Val Glu Leu Cys Glu Glu Phe Leu Leu Lys Asn
 85 90 95

 <210> 51
 <211> 371
 <212> PRT
 <213> Mus musculus

 <400> 51
 Met Asn Gly Ser Asp Ser Gln Gly Ala Glu Asp Ser Ser Gln Glu Gly
 1 5 10 15
 Gly Gly Gly Trp Gln Pro Glu Ala Val Leu Val Pro Leu Phe Phe Ala
 20 25 30
 Leu Ile Phe Leu Val Gly Ala Val Gly Asn Ala Leu Val Leu Ala Val
 35 40 45
 Leu Leu Arg Gly Gly Gln Ala Val Ser Thr Thr Asn Leu Phe Ile Leu
 50 55 60
 Asn Leu Gly Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro Phe
 65 70 75 80
 Gln Ala Thr Ile Tyr Thr Leu Asp Asp Trp Val Phe Gly Ser Leu Leu
 85 90 95
 Cys Lys Ala Val His Phe Leu Ile Phe Leu Thr Met His Ala Ser Ser
 100 105 110
 Phe Thr Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Ile Arg Tyr
 115 120 125
 Pro Met His Ser Arg Glu Leu Arg Thr Pro Arg Asn Ala Leu Ala Ala
 130 135 140
 Ile Gly Leu Ile Trp Gly Leu Ala Leu Leu Phe Ser Gly Pro Tyr Leu
 145 150 155 160
 Ser Tyr Tyr Ser Gln Ser Gln Leu Ala Asn Leu Thr Val Cys His Pro
 165 170 175
 Ala Trp Ser Ala Pro Arg Arg Arg Ala Met Asp Leu Cys Thr Phe Val
 180 185 190
 Phe Ser Tyr Leu Leu Pro Val Leu Val Leu Ser Leu Thr Tyr Ala Arg
 195 200 205
 Thr Leu His Tyr Leu Trp Arg Thr Val Asp Pro Val Ala Ala Gly Ser
 210 215 220

Gly Ser Gln Arg Ala Lys Arg Lys Val Thr Arg Met Ile Val Ile Val
 225 230 235 240

Ala Val Leu Phe Cys Leu Cys Trp Met Pro His His Ala Leu Ile Leu
 245 250 255

Cys Val Trp Phe Gly Arg Phe Pro Leu Thr Arg Ala Thr Tyr Ala Leu
 260 265 270

Arg Ile Leu Ser His Leu Val Ser Tyr Ala Asn Ser Cys Val Asn Pro
 275 280 285

Ile Val Tyr Ala Leu Val Ser Lys His Phe Arg Lys Gly Phe Arg Lys
 290 295 300

Ile Cys Ala Gly Leu Leu Arg Arg Ala Pro Arg Arg Ala Ser Gly Arg
 305 310 315 320

Val Cys Ile Leu Ala Pro Gly Asn His Ser Gly Gly Met Leu Glu Pro
 325 330 335

Glu Ser Thr Asp Leu Thr Gln Val Ser Glu Ala Ala Gly Pro Leu Val
 340 345 350

Pro Ala Pro Ala Leu Pro Asn Cys Thr Thr Leu Ser Arg Thr Leu Asp
 355 360 365

Pro Ala Cys
 370

<210> 52

<211> 387

<212> PRT

<213> Homo sapiens

<400> 52

Met Asn Val Ser Gly Cys Pro Gly Ala Gly Asn Ala Ser Gln Ala Gly
 1 5 10 15

Gly Gly Gly Gly Trp His Pro Glu Ala Val Ile Val Pro Leu Leu Phe
 20 25 30

Ala Leu Ile Phe Leu Val Gly Thr Val Gly Asn Thr Leu Val Leu Ala
 35 40 45

Val Leu Leu Arg Gly Gly Gln Ala Val Ser Thr Thr Asn Leu Phe Ile
 50 55 60

Leu Asn Leu Gly Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro
 65 70 75 80

Phe Gln Ala Thr Ile Tyr Thr Leu Asp Gly Trp Val Phe Gly Ser Leu
 85 90 95

Leu Cys Lys Ala Val His Phe Leu Ile Phe Leu Thr Met His Ala Ser
 100 105 110

Ser Phe Thr Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Ile Arg
 115 120 125
 Tyr Pro Leu His Ser Arg Glu Leu Arg Thr Pro Arg Asn Ala Leu Ala
 130 135 140
 Ala Ile Gly Leu Ile Trp Gly Leu Ser Leu Leu Phe Ser Gly Pro Tyr
 145 150 155 160
 Leu Ser Tyr Tyr Arg Gln Ser Gln Leu Ala Asn Leu Thr Val Cys His
 165 170 175
 Pro Ala Trp Ser Ala Pro Arg Arg Arg Ala Met Asp Ile Cys Thr Phe
 180 185 190
 Val Phe Ser Tyr Leu Leu Pro Val Leu Val Leu Gly Leu Thr Tyr Ala
 195 200 205
 Arg Thr Leu Arg Tyr Leu Trp Arg Ala Val Asp Pro Val Ala Ala Gly
 210 215 220
 Ser Gly Ala Arg Arg Ala Lys Arg Lys Val Thr Arg Met Ile Leu Ile
 225 230 235 240
 Val Ala Ala Leu Phe Cys Leu Cys Trp Met Pro His His Ala Leu Ile
 245 250 255
 Leu Cys Val Trp Phe Gly Gln Phe Pro Leu Thr Arg Ala Thr Tyr Ala
 260 265 270
 Leu Arg Ile Leu Ser His Leu Val Ser Tyr Ala Asn Ser Cys Val Asn
 275 280 285
 Pro Ile Val Tyr Ala Leu Val Ser Lys His Phe Arg Lys Gly Phe Arg
 290 295 300
 Thr Ile Cys Ala Gly Leu Leu Gly Arg Ala Pro Gly Arg Ala Ser Gly
 305 310 315 320
 Arg Val Cys Ala Ala Ala Arg Gly Thr His Ser Gly Ser Val Leu Glu
 325 330 335
 Arg Glu Ser Ser Asp Leu Leu His Met Ser Glu Ala Ala Gly Ala Leu
 340 345 350
 Arg Pro Cys Pro Gly Ala Ser Gln Pro Cys Ile Leu Glu Pro Cys Pro
 355 360 365
 Gly Pro Ser Trp Gln Gly Pro Lys Ala Gly Asp Ser Ile Leu Thr Val
 370 375 380
 Asp Val Ala
 385

<211> 372
 <212> PRT
 <213> Rattus norvegicus

<400> 53
 Met Asn Gly Ser Gly Ser Gln Gly Ala Glu Asn Thr Ser Gln Glu Gly
 1 5 10 15
 Gly Ser Gly Gly Trp Gln Pro Glu Ala Val Leu Val Pro Leu Phe Phe
 20 25 30
 Ala Leu Ile Phe Leu Val Gly Thr Val Gly Asn Ala Leu Val Leu Ala
 35 40 45
 Val Leu Leu Arg Gly Gly Gln Ala Val Ser Thr Thr Asn Leu Phe Ile
 50 55 60
 Leu Asn Leu Gly Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro
 65 70 75 80
 Phe Gln Ala Thr Ile Tyr Thr Leu Asp Asp Trp Val Phe Gly Ser Leu
 85 90 95
 Leu Cys Lys Ala Val His Phe Leu Ile Phe Leu Thr Met His Ala Ser
 100 105 110
 Ser Phe Thr Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Ile Arg
 115 120 125
 Tyr Pro Leu His Ser Arg Glu Leu Arg Thr Pro Arg Asn Ala Leu Ala
 130 135 140
 Ala Ile Gly Leu Ile Trp Gly Leu Ala Leu Leu Phe Ser Gly Pro Tyr
 145 150 155 160
 Leu Ser Tyr Tyr Arg Gln Ser Gln Leu Ala Asn Leu Thr Val Cys His
 165 170 175
 Pro Ala Trp Ser Ala Pro Arg Arg Arg Ala Met Asp Leu Cys Thr Phe
 180 185 190
 Val Phe Ser Tyr Leu Leu Pro Val Leu Val Leu Ser Leu Thr Tyr Ala
 195 200 205
 Arg Thr Leu Arg Tyr Leu Trp Arg Thr Val Asp Pro Val Thr Ala Gly
 210 215 220
 Ser Gly Ser Gln Arg Ala Lys Arg Lys Val Thr Arg Met Ile Ile Ile
 225 230 235 240
 Val Ala Val Leu Phe Cys Leu Cys Trp Met Pro His His Ala Leu Ile
 245 250 255
 Leu Cys Val Trp Phe Gly Arg Phe Pro Leu Thr Arg Ala Thr Tyr Ala
 260 265 270
 Leu Arg Ile Leu Ser His Leu Val Ser Tyr Ala Asn Ser Cys Val Asn

275 280 285
 Pro Ile Val Tyr Ala Leu Val Ser Lys His Phe Arg Lys Gly Phe Arg
 290 295 300
 Lys Ile Cys Ala Gly Leu Leu Arg Pro Ala Pro Arg Arg Ala Ser Gly
 305 310 315 320
 Arg Val Ser Ile Leu Ala Pro Gly Asn His Ser Gly Ser Met Leu Glu
 325 330 335
 Gln Glu Ser Thr Asp Leu Thr Gln Val Ser Glu Ala Ala Gly Pro Leu
 340 345 350
 Val Pro Pro Pro Ala Leu Pro Asn Cys Thr Ala Ser Ser Arg Thr Leu
 355 360 365
 Asp Pro Ala Cys
 370

 <210> 54
 <211> 371
 <212> PRT
 <213> Mus musculus

 <220>
 <221> VARIANT
 <222> (325)
 <223> Wherein Xaa is any amino acid as defined in the
 specification.

 <220>
 <221> VARIANT
 <222> (360)
 <223> Wherein Xaa is any amino acid as defined in the
 specification

 <400> 54
 Met Asn Gly Ser Asp Ser Gln Gly Ala Glu Asp Ser Ser Gln Glu Gly
 1 5 10 15
 Gly Gly Gly Trp Gln Pro Glu Ala Val Leu Val Pro Leu Phe Phe Ala
 20 25 30
 Leu Ile Phe Leu Val Gly Ala Val Gly Asn Ala Leu Val Leu Ala Val
 35 40 45
 Leu Leu Arg Gly Gly Gln Ala Val Ser Thr Thr Asn Leu Phe Ile Leu
 50 55 60
 Asn Leu Gly Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro Phe
 65 70 75 80
 Gln Ala Thr Ile Tyr Thr Leu Asp Asp Trp Val Phe Gly Ser Leu Leu
 85 90 95

Cys Lys Ala Val His Phe Leu Ile Phe Leu Thr Met His Ala Ser Ser
 100 105 110
 Phe Thr Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Ile Arg Tyr
 115 120 125
 Pro Leu His Ser Arg Glu Leu Arg Thr Pro Arg Asn Ala Leu Ala Ala
 130 135 140
 Ile Gly Leu Ile Trp Gly Leu Ala Leu Leu Phe Ser Gly Pro Tyr Leu
 145 150 155 160
 Ser Tyr Tyr Ser Gln Ser Gln Leu Ala Asn Leu Thr Val Cys His Pro
 165 170 175
 Ala Trp Ser Ala Pro Arg Arg Pro Trp Asn Ser Cys Thr Phe Cys Leu
 180 185 190
 Ser Tyr Leu Leu Pro Val Leu Val Leu Ser Leu Thr Tyr Ala Arg Thr
 195 200 205
 Leu His Tyr Leu Trp Arg Thr Val Asp Pro Val Val Ala Gly Ser Gly
 210 215 220
 Ser Gln Arg Ala Lys Arg Lys Val Thr Arg Met Ile Val Ile Val Ala
 225 230 235 240
 Val Leu Phe Cys Leu Cys Trp Met Pro His His Ala Leu Ile Leu Cys
 245 250 255
 Val Trp Phe Gly Arg Phe Pro Leu Thr Arg Ala Thr Tyr Ala Leu Arg
 260 265 270
 Ile Leu Ser His Leu Val Ser Tyr Ala Asn Ser Cys Val Asn Pro Ile
 275 280 285
 Val Tyr Ala Leu Val Ser Lys His Phe Arg Lys Gly Phe Arg Lys Ile
 290 295 300
 Cys Ala Gly Leu Leu Arg Arg Ala Pro Arg Arg Ala Ser Gly Arg Val
 305 310 315 320
 Cys Ile Leu Ala Xaa Gly Asn His Ser Gly Gly Met Leu Glu Pro Glu
 325 330 335
 Ser Thr Asp Leu Thr Gln Val Lys Arg Gly Ser Arg Ala Pro Arg Pro
 340 345 350
 Arg Thr Arg Thr Ser Gln Thr Xaa Thr Thr Leu Ser Arg Thr Leu Asp
 355 360 365
 Pro Ala Cys
 370

<210> 55

<211> 370

<212> PRT

<213> Rattus norvegicus

<400> 55

Met Ala Asp Ile Gln Asn Ile Ser Leu Asp Ser Pro Gly Ser Val Gly
 1 5 10 15

Ala Val Ala Val Pro Val Ile Phe Ala Leu Ile Phe Leu Leu Gly Met
 20 25 30

Val Gly Asn Gly Leu Val Leu Ala Val Leu Leu Gln Pro Gly Pro Ser
 35 40 45

Ala Trp Gln Glu Pro Ser Ser Thr Thr Asp Leu Phe Ile Leu Asn Leu
 50 55 60

Ala Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro Phe Gln Ala
 65 70 75 80

Ala Ile Tyr Thr Leu Asp Ala Trp Leu Phe Gly Ala Phe Val Cys Lys
 85 90 95

Thr Val His Leu Leu Ile Tyr Leu Thr Met Tyr Ala Ser Ser Phe Thr
 100 105 110

Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Val Arg His Pro Leu
 115 120 125

Arg Ser Arg Ala Leu Arg Thr Pro Arg Asn Ala Arg Ala Ala Val Gly
 130 135 140

Leu Val Trp Leu Leu Ala Ala Leu Phe Ser Ala Pro Tyr Leu Ser Tyr
 145 150 155 160

Tyr Gly Thr Val Arg Tyr Gly Ala Leu Glu Leu Cys Val Pro Ala Trp
 165 170 175

Glu Asp Ala Arg Arg Arg Ala Leu Asp Val Ala Thr Phe Ala Ala Gly
 180 185 190

Tyr Leu Leu Pro Val Ala Val Val Ser Leu Ala Tyr Gly Arg Thr Leu
 195 200 205

Cys Phe Leu Trp Ala Ala Val Gly Pro Ala Gly Ala Ala Ala Glu
 210 215 220

Ala Arg Arg Arg Ala Thr Gly Arg Ala Gly Arg Ala Met Leu Ala Val
 225 230 235 240

Ala Ala Leu Tyr Ala Leu Cys Trp Gly Pro His His Ala Leu Ile Leu
 245 250 255

Cys Phe Trp Tyr Gly Arg Phe Ala Phe Ser Pro Ala Thr Tyr Ala Cys
 260 265 270

Arg Leu Ala Ser His Cys Leu Ala Tyr Ala Asn Ser Cys Leu Asn Pro
 275 280 285

Leu Val Tyr Ser Leu Ala Ser Arg His Phe Arg Ala Arg Phe Arg Arg
 290 295 300

Leu Trp Pro Cys Gly Arg Arg Arg His Arg His His His Arg Ala His
 305 310 315 320

Arg Ala Leu Arg Arg Val Gln Pro Ala Ser Ser Gly Pro Ala Gly Tyr
 325 330 335

Pro Gly Asp Ala Arg Pro Arg Gly Trp Ser Met Glu Pro Arg Gly Asp
 340 345 350

Ala Leu Arg Gly Gly Gly Glu Thr Arg Leu Thr Leu Ser Pro Arg Gly
 355 360 365

Pro Gln
 370

<210> 56
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 56
 Trp Val Phe Gly Asp Ala Leu Cys Lys Leu Val Gly Ala Leu Phe Val
 1 5 10 15

Val Asn Gly Tyr Ala Ser Ile Leu Leu Leu Thr Ala Ile Ser Ile Asp
 20 25 30

Arg Tyr Leu Ala Ile Val His Pro Leu Arg Tyr Arg Arg Ile Arg Thr
 35 40 45

Pro Arg Arg Ala Lys Val Leu Ile Leu Leu Val Trp Val Leu Ala Leu
 50 55 60

Leu Leu Ser Leu Pro Pro Leu Leu Phe Ser Trp Leu Arg Thr Val Glu
 65 70 75 80

Glu Gly Asn Thr Thr Val Cys Leu Ile Asp Phe Pro Glu Glu Ser Val
 85 90 95

Lys Arg Ser Tyr Val Leu Leu Ser Thr Leu Val Gly Phe Val Leu Pro
 100 105 110

Leu Leu Val Ile Leu Val Cys Tyr Thr Arg Ile Leu Arg Thr Leu Arg
 115 120 125

Lys Arg Ala Arg Ser Gln Arg Ser Leu Lys Arg Arg Ser Ser Ser Glu
 130 135 140

Arg Lys Ala Ala Lys Met Leu Leu Val Val Val Val Phe Val Leu
 145 150 155 160

Cys Trp Leu Pro Tyr His Ile Val Leu Leu Leu Asp Ser Leu Cys Leu

Leu Thr His Gly Leu Gln Thr Asp Ser Cys Leu Lys Gln Lys Ala Arg
 225 230 235 240

Arg Leu Thr Ile Leu Leu Leu Leu Ala Phe Tyr Val Cys Phe Leu Pro
 245 250 255

Phe His Ile Leu Arg Val Ile Arg Ile Glu Ser Arg Leu Leu Ser Ile
 260 265 270

Ser Cys Ser Ile Glu Asn Gln Ile His Glu Ala Tyr Ile Val Ser Arg
 275 280 285

Pro Leu Ala Ala Leu Asn Thr Phe Gly Asn Leu Leu Leu Tyr Val Val
 290 295 300

Val Ser Asp Asn Phe Gln Gln Ala Val Cys Ser Thr Val Arg Cys Lys
 305 310 315 320

Val Ser Gly Asn Leu Glu Gln Ala Lys Lys Ile Ser Tyr Ser Asn Asn
 325 330 335

Pro

<210> 58

<211> 373

<212> PRT

<213> Mus musculus

<400> 58

Met Thr Glu Val Pro Trp Ser Val Val Pro Asn Gly Thr Asp Ala Ala
 1 5 10 15

Phe Leu Ala Gly Leu Gly Ser Leu Trp Gly Asn Ser Thr Val Ala Ser
 20 25 30

Thr Ala Ala Val Ser Ser Ser Phe Gln Cys Ala Leu Thr Lys Thr Gly
 35 40 45

Phe Gln Phe Tyr Tyr Leu Pro Ala Val Tyr Ile Leu Val Phe Ile Ile
 50 55 60

Gly Phe Leu Gly Asn Ser Val Ala Ile Trp Met Phe Val Phe His Met
 65 70 75 80

Lys Pro Trp Ser Gly Ile Ser Val Tyr Met Phe Asn Leu Ala Leu Ala
 85 90 95

Asp Phe Leu Tyr Val Leu Thr Leu Pro Ala Leu Ile Phe Tyr Tyr Phe
 100 105 110

Asn Lys Thr Asp Trp Ile Phe Gly Asp Ala Met Cys Lys Leu Gln Arg
 115 120 125

Phe Ile Phe His Val Asn Leu Tyr Gly Ser Ile Leu Phe Leu Thr Cys
 130 135 140

Ile Ser Ala His Arg Tyr Ser Gly Val Val Tyr Pro Leu Lys Ser Leu
 145 150 155 160
 Gly Arg Leu Lys Lys Lys Asn Ala Ile Tyr Val Ser Val Leu Val Trp
 165 170 175
 Leu Ile Val Val Val Ala Ile Ser Pro Ile Leu Phe Tyr Ser Gly Thr
 180 185 190
 Gly Thr Arg Lys Asn Lys Thr Val Thr Cys Tyr Asp Thr Thr Ser Asn
 195 200 205
 Asp Tyr Leu Arg Ser Tyr Phe Ile Tyr Ser Met Cys Thr Thr Val Ala
 210 215 220
 Met Phe Cys Ile Pro Leu Val Leu Ile Leu Gly Cys Tyr Gly Leu Ile
 225 230 235 240
 Val Lys Ala Leu Ile Tyr Asn Asp Leu Asp Asn Ser Pro Leu Arg Arg
 245 250 255
 Lys Ser Ile Tyr Leu Val Ile Ile Val Leu Thr Val Phe Ala Val Ser
 260 265 270
 Tyr Ile Pro Phe His Val Met Lys Thr Met Asn Leu Arg Ala Arg Leu
 275 280 285
 Asp Phe Gln Thr Pro Glu Met Cys Asp Phe Asn Asp Arg Val Tyr Ala
 290 295 300
 Thr Tyr Gln Val Thr Arg Gly Leu Ala Ser Leu Asn Ser Cys Val Asp
 305 310 315 320
 Pro Ile Leu Tyr Phe Leu Ala Gly Asp Thr Phe Arg Arg Arg Leu Ser
 325 330 335
 Arg Ala Thr Arg Lys Ala Ser Arg Arg Ser Glu Ala Asn Leu Gln Ser
 340 345 350
 Lys Ser Glu Glu Met Thr Leu Asn Ile Leu Ser Glu Phe Lys Gln Asn
 355 360 365
 Gly Asp Thr Ser Leu
 370

<210> 59
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 59
 Met Thr Glu Val Leu Trp Pro Ala Val Pro Asn Gly Thr Asp Ala Ala
 1 5 10 15

Phe Leu Ala Gly Pro Gly Ser Ser Trp Gly Asn Ser Thr Val Ala Ser

20 25 30

Thr Ala Ala Val Ser Ser Ser Phe Lys Cys Ala Leu Thr Lys Thr Gly
35 40 45

Phe Gln Phe Tyr Tyr Leu Pro Ala Val Tyr Ile Leu Val Phe Ile Ile
50 55 60

Gly Phe Leu Gly Asn Ser Val Ala Ile Trp Met Phe Val Phe His Met
65 70 75 80

Lys Pro Trp Ser Gly Ile Ser Val Tyr Met Phe Asn Leu Ala Leu Ala
85 90 95

Asp Phe Leu Tyr Val Leu Thr Leu Pro Ala Leu Ile Phe Tyr Tyr Phe
100 105 110

Asn Lys Thr Asp Trp Ile Phe Gly Asp Ala Met Cys Lys Leu Gln Arg
115 120 125

Phe Ile Phe His Val Asn Leu Tyr Gly Ser Ile Leu Phe Leu Thr Cys
130 135 140

Ile Ser Ala His Arg Tyr Ser Gly Val Val Tyr Pro Leu Lys Ser Leu
145 150 155 160

Gly Arg Leu Lys Lys Lys Asn Ala Ile Cys Ile Ser Val Leu Val Trp
165 170 175

Leu Ile Val Val Val Ala Ile Ser Pro Ile Leu Phe Tyr Ser Gly Thr
180 185 190

Gly Val Arg Lys Asn Lys Thr Ile Thr Cys Tyr Asp Thr Thr Ser Asp
195 200 205

Glu Tyr Leu Arg Ser Tyr Phe Ile Tyr Ser Met Cys Thr Thr Val Ala
210 215 220

Met Phe Cys Val Pro Leu Val Leu Ile Leu Gly Cys Tyr Gly Leu Ile
225 230 235 240

Val Arg Ala Leu Ile Tyr Lys Asp Leu Asp Asn Ser Pro Leu Arg Arg
245 250 255

Lys Ser Ile Tyr Leu Val Ile Ile Val Leu Thr Val Phe Ala Val Ser
260 265 270

Tyr Ile Pro Phe His Val Met Lys Thr Met Asn Leu Arg Ala Arg Leu
275 280 285

Asp Phe Gln Thr Pro Ala Met Cys Ala Phe Asn Asp Arg Val Tyr Ala
290 295 300

Thr Tyr Gln Val Thr Arg Gly Leu Ala Ser Leu Asn Ser Cys Val Asp
305 310 315 320

Pro Ile Leu Tyr Phe Leu Ala Gly Asp Thr Phe Arg Arg Arg Leu Ser

325
Arg Ala Thr Arg Lys Ala Ser Arg Arg Ser Glu Ala Asn Leu Gln Ser
340 345 350
Lys Ser Glu Asp Met Thr Leu Asn Ile Leu Pro Glu Phe Lys Gln Asn
355 360 365
Gly Asp Thr Ser Leu
370

<210> 60
<211> 373
<212> PRT
<213> Rattus norvegicus

<400> 60
Met Thr Glu Val Pro Trp Ser Ala Val Pro Asn Gly Thr Asp Ala Ala
1 5 10 15
Phe Leu Ala Gly Leu Gly Ser Leu Trp Gly Asn Ser Thr Ile Ala Ser
20 25 30
Thr Ala Ala Val Ser Ser Ser Phe Arg Cys Ala Leu Ile Lys Thr Gly
35 40 45
Phe Gln Phe Tyr Tyr Leu Pro Ala Val Tyr Ile Leu Val Phe Ile Ile
50 55 60
Gly Phe Leu Gly Asn Ser Val Ala Ile Trp Met Phe Val Phe His Met
65 70 75 80
Lys Pro Trp Ser Gly Ile Ser Val Tyr Met Phe Asn Leu Ala Leu Ala
85 90 95
Asp Phe Leu Tyr Val Leu Thr Leu Pro Ala Leu Ile Phe Tyr Tyr Phe
100 105 110
Asn Lys Thr Asp Trp Ile Phe Gly Asp Val Met Cys Lys Leu Gln Arg
115 120 125
Phe Ile Phe His Val Asn Leu Tyr Gly Ser Ile Leu Phe Leu Thr Cys
130 135 140
Ile Ser Ala His Arg Tyr Ser Gly Val Val Tyr Pro Leu Lys Ser Leu
145 150 155 160
Gly Arg Leu Lys Lys Lys Asn Ala Ile Tyr Val Ser Val Leu Val Trp
165 170 175
Leu Ile Val Val Val Ala Ile Ser Pro Ile Leu Phe Tyr Ser Gly Thr
180 185 190
Gly Ile Arg Lys Asn Lys Thr Val Thr Cys Tyr Asp Ser Thr Ser Asp
195 200 205

Glu Tyr Leu Arg Ser Tyr Phe Ile Tyr Ser Met Cys Thr Thr Val Ala
210 215 220

Met Phe Cys Ile Pro Leu Val Leu Ile Leu Gly Cys Tyr Gly Leu Ile
225 230 235 240

Val Arg Ala Leu Ile Tyr Lys Asp Leu Asp Asn Ser Pro Leu Arg Arg
245 250 255

Lys Ser Ile Tyr Leu Val Ile Ile Val Leu Thr Val Phe Ala Val Ser
260 265 270

Tyr Ile Pro Phe His Val Met Lys Thr Met Asn Leu Arg Ala Arg Leu
275 280 285

Asp Phe Gln Thr Pro Glu Met Cys Asp Phe Asn Asp Arg Val Tyr Ala
290 295 300

Thr Tyr Gln Val Thr Arg Gly Leu Ala Ser Leu Asn Ser Cys Val Asp
305 310 315 320

Pro Ile Leu Tyr Phe Leu Ala Gly Asp Thr Phe Arg Arg Arg Leu Ser
325 330 335

Arg Ala Thr Arg Lys Ala Ser Arg Arg Ser Glu Ala Asn Leu Gln Ser
340 345 350

Lys Ser Glu Glu Met Thr Leu Asn Ile Leu Ser Glu Phe Lys Gln Asn
355 360 365

Gly Asp Thr Ser Leu
370

<210> 61
<211> 373
<212> PRT
<213> Bos taurus

<400> 61
Met Thr Glu Val Leu Trp Pro Ala Val Pro Asn Gly Thr Asp Thr Ala
1 5 10 15

Phe Leu Ala Asp Pro Gly Ser Pro Trp Gly Asn Ser Thr Val Thr Ser
20 25 30

Thr Ala Ala Val Ala Ser Pro Phe Lys Cys Ala Leu Thr Lys Thr Gly
35 40 45

Phe Gln Phe Tyr Tyr Leu Pro Ala Val Tyr Ile Leu Val Phe Ile Ile
50 55 60

Gly Phe Leu Gly Asn Ser Val Ala Ile Trp Met Phe Val Phe His Met
65 70 75 80

Lys Pro Trp Ser Gly Ile Ser Val Tyr Met Phe Asn Leu Ala Leu Ala
85 90 95

Asp Phe Leu Tyr Val Leu Thr Leu Pro Ala Leu Ile Phe Tyr Tyr Phe
 100 105 110
 Asn Lys Thr Asp Trp Ile Phe Gly Asp Ala Met Cys Lys Leu Gln Arg
 115 120 125
 Phe Ile Phe His Val Asn Leu Tyr Gly Ser Ile Leu Phe Leu Thr Cys
 130 135 140
 Ile Ser Ala His Arg Tyr Ser Gly Val Val Tyr Pro Leu Lys Ser Leu
 145 150 155 160
 Gly Arg Leu Lys Lys Lys Asn Ala Val Tyr Ile Ser Val Leu Val Trp
 165 170 175
 Leu Ile Val Val Val Gly Ile Ser Pro Ile Leu Phe Tyr Ser Gly Thr
 180 185 190
 Gly Ile Arg Lys Asn Lys Thr Ile Thr Cys Tyr Asp Thr Thr Ser Asp
 195 200 205
 Glu Tyr Leu Arg Ser Tyr Phe Ile Tyr Ser Met Cys Thr Thr Val Ala
 210 215 220
 Met Phe Cys Val Pro Leu Val Leu Ile Leu Gly Cys Tyr Gly Leu Ile
 225 230 235 240
 Val Arg Ala Leu Ile Tyr Lys Asp Leu Asp Asn Ser Pro Leu Arg Arg
 245 250 255
 Lys Ser Ile Tyr Leu Val Ile Ile Val Leu Thr Val Phe Ala Val Ser
 260 265 270
 Tyr Ile Pro Phe His Val Met Lys Thr Met Asn Leu Arg Ala Arg Leu
 275 280 285
 Asp Phe Gln Thr Pro Glu Met Cys Ala Phe Asn Asp Arg Val Tyr Ala
 290 295 300
 Thr Tyr Gln Val Thr Arg Gly Leu Ala Ser Leu Asn Ser Cys Val Asp
 305 310 315 320
 Pro Ile Leu Tyr Phe Leu Ala Gly Asp Thr Phe Arg Arg Arg Leu Ser
 325 330 335
 Arg Ala Thr Arg Lys Ala Ser Arg Arg Ser Glu Ala Asn Leu Gln Ser
 340 345 350
 Lys Ser Glu Asp Met Thr Leu Asn Ile Leu Ser Glu Phe Lys Gln Asn
 355 360 365
 Gly Asp Thr Ser Leu
 370

<211> 254
 <212> PRT
 <213> Homo sapiens

<400> 62
 Gly Asn Leu Leu Val Ile Leu Val Ile Leu Arg Thr Lys Lys Leu Arg 15
 1 5 10
 Thr Pro Thr Asn Ile Phe Leu Leu Asn Leu Ala Val Ala Asp Leu Leu 30
 20 25
 Phe Leu Leu Thr Leu Pro Pro Trp Ala Leu Tyr Tyr Leu Val Gly Gly 45
 35 40
 Asp Trp Val Phe Gly Asp Ala Leu Cys Lys Leu Val Gly Ala Leu Phe 60
 50 55
 Val Val Asn Gly Tyr Ala Ser Ile Leu Leu Leu Thr Ala Ile Ser Ile 80
 65 70 75
 Asp Arg Tyr Leu Ala Ile Val His Pro Leu Arg Tyr Arg Arg Ile Arg 95
 85 90
 Thr Pro Arg Arg Ala Lys Val Leu Ile Leu Leu Val Trp Val Leu Ala 110
 100 105
 Leu Leu Leu Ser Leu Pro Pro Leu Leu Phe Ser Trp Leu Arg Thr Val 125
 115 120
 Glu Glu Gly Asn Thr Thr Val Cys Leu Ile Asp Phe Pro Glu Glu Ser 140
 130 135
 Val Lys Arg Ser Tyr Val Leu Leu Ser Thr Leu Val Gly Phe Val Leu 160
 145 150 155
 Pro Leu Leu Val Ile Leu Val Cys Tyr Thr Arg Ile Leu Arg Thr Leu 175
 165 170
 Arg Lys Arg Ala Arg Ser Gln Arg Ser Leu Lys Arg Arg Ser Ser Ser 190
 180 185
 Glu Arg Lys Ala Ala Lys Met Leu Leu Val Val Val Val Phe Val 205
 195 200
 Leu Cys Trp Leu Pro Tyr His Ile Val Leu Leu Leu Asp Ser Leu Cys 220
 210 215
 Leu Leu Ser Ile Trp Arg Val Leu Pro Thr Ala Leu Leu Ile Thr Leu 240
 225 230 235
 Trp Leu Ala Tyr Val Asn Ser Cys Leu Asn Pro Ile Ile Tyr 250
 245 250

<210> 63
 <211> 797
 <212> PRT

<213> Homo sapiens

<400> 63

Met Glu Ser Thr Cys Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys
 1 5 10 15
 Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly
 20 25 30
 Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp
 35 40 45
 Asp Ala Trp Lys Tyr Asn Gly Asp Ile Glu Asp Ile Lys Arg Thr Pro
 50 55 60
 Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu
 65 70 75 80
 Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp
 85 90 95
 Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln
 100 105 110
 Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu
 115 120 125
 Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu
 130 135 140
 Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn
 145 150 155 160
 Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp
 165 170 175
 Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu
 180 185 190
 Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr
 195 200 205
 Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys
 210 215 220
 Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys
 225 230 235 240
 Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr
 245 250 255
 Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu
 260 265 270
 Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His
 275 280 285

Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu
 290 295 300
 Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp
 305 310 315 320
 Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg
 325 330 335
 Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln
 340 345 350
 Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu
 355 360 365
 Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu
 370 375 380
 Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser
 385 390 395 400
 Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr
 405 410 415
 Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly
 420 425 430
 Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln
 435 440 445
 Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp
 450 455 460
 Glu Gln Gln Leu Gln Glu Glu Gln Glu Gln Lys Arg Leu Gln Ala Glu
 465 470 475 480
 Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu
 485 490 495
 Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val
 500 505 510
 Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu
 515 520 525
 Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr
 530 535 540
 Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn
 545 550 555 560
 Thr Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly
 565 570 575
 Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr
 580 585 590

Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val
595 600 605

Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser
610 615 620

Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro
625 630 635 640

Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp
645 650 655

Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr
660 665 670

Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val
675 680 685

Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg
690 695 700

Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Arg
705 710 715 720

Ser Val Ser Gly Lys Arg Ile Cys Ser Tyr Cys Asn Asn Ile Leu Gly
725 730 735

Lys Gly Ala Ala Met Ile Ile Glu Ser Leu Gly Leu Cys Tyr His Leu
740 745 750

His Cys Phe Lys Cys Val Ala Cys Glu Cys Asp Leu Gly Gly Ser Ser
755 760 765

Ser Gly Ala Glu Val Arg Ile Arg Asn His Gln Leu Tyr Cys Asn Asp
770 775 780

Cys Tyr Leu Arg Phe Lys Ser Gly Arg Pro Thr Ala Met
785 790 795

<210> 64

<211> 797

<212> PRT

<213> Homo sapiens

<400> 64

Met Glu Ser Thr Arg Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys
1 5 10 15

Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly
20 25 30

Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp
35 40 45

Asp Ala Trp Lys Tyr Asn Gly Asp Val Glu Asp Ile Lys Arg Thr Pro
50 55 60

Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu
 65 70 75 80
 Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp
 85 90 95
 Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln
 100 105 110
 Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu
 115 120 125
 Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu
 130 135 140
 Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn
 145 150 155 160
 Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp
 165 170 175
 Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu
 180 185 190
 Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr
 195 200 205
 Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys
 210 215 220
 Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys
 225 230 235 240
 Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr
 245 250 255
 Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu
 260 265 270
 Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His
 275 280 285
 Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu
 290 295 300
 Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp
 305 310 315 320
 Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg
 325 330 335
 Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln
 340 345 350
 Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu
 355 360 365

Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu
 370 375 380
 Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser
 385 390 395 400
 Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr
 405 410 415
 Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly
 420 425 430
 Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln
 435 440 445
 Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp
 450 455 460
 Glu Gln Gln Leu Gln Glu Glu Gln Glu Gln Lys Arg Leu Gln Ala Glu
 465 470 475 480
 Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu
 485 490 495
 Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val
 500 505 510
 Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu
 515 520 525
 Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr
 530 535 540
 Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn
 545 550 555 560
 Met Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly
 565 570 575
 Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr
 580 585 590
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val
 595 600 605
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser
 610 615 620
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro
 625 630 635 640
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp
 645 650 655
 Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr
 660 665 670

Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val
675 680 685

Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg
690 695 700

Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Arg
705 710 715 720

Ser Val Ser Gly Lys Arg Ile Cys Ser Tyr Cys Asn Asn Ile Leu Gly
725 730 735

Lys Gly Ala Ala Met Ile Ile Glu Ser Leu Gly Leu Cys Tyr His Leu
740 745 750

His Cys Phe Lys Cys Val Ala Cys Glu Cys Asp Leu Gly Gly Ser Ser
755 760 765

Ser Gly Ala Glu Val Arg Ile Arg Asn His Gln Leu Tyr Cys Asn Asp
770 775 780

Cys Tyr Leu Arg Phe Lys Ser Gly Arg Pro Thr Ala Met
785 790 795

<210> 65

<211> 784

<212> PRT

<213> Homo sapiens

<400> 65

Met Glu Ser Thr Cys Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys
1 5 10 15

Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly
20 25 30

Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp
35 40 45

Asp Ala Trp Lys Tyr Asn Gly Asp Ile Glu Asp Ile Lys Arg Thr Pro
50 55 60

Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu
65 70 75 80

Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp
85 90 95

Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln
100 105 110

Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu
115 120 125

Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu

130	135	140
Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn		
145	150	155 160
Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp		
	165	170 175
Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu		
	180	185 190
Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr		
	195	200 205
Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys		
	210	215 220
Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys		
225	230	235 240
Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr		
	245	250 255
Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu		
	260	265 270
Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His		
	275	280 285
Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu		
	290	295 300
Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp		
305	310	315 320
Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg		
	325	330 335
Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln		
	340	345 350
Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu		
	355	360 365
Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu		
	370	375 380
Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser		
385	390	395 400
Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr		
	405	410 415
Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly		
	420	425 430
Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln		

435 440 445
 Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp
 450 455 460
 Glu Gln Gln Leu Gln Glu Glu Gln Glu Gln Lys Arg Leu Gln Ala Glu
 465 470 475 480
 Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu
 485 490 495
 Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val
 500 505 510
 Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu
 515 520 525
 Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr
 530 535 540
 Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn
 545 550 555 560
 Thr Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly
 565 570 575
 Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr
 580 585 590
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val
 595 600 605
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser
 610 615 620
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro
 625 630 635 640
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp
 645 650 655
 Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr
 660 665 670
 Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val
 675 680 685
 Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg
 690 695 700
 Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Ser
 705 710 715 720
 Val Leu Pro Val Ser Val Thr Ser Glu Ala Leu Pro Gln Glu Leu Lys
 725 730 735
 Ser Gly Ser Glu Thr Thr Asn Cys Thr Ala Thr Thr Ala Ile Ser Asp

740

745

750

Ser Asn Leu Asp Gly Gln Pro Pro Cys Asp Val Ser Leu His Thr Lys
 755 760 765

Ala Leu Leu Gln Ile Glu Glu Glu Val Val Ala Ala His Val Asp Leu
 770 775 780

<210> 66
 <211> 728
 <212> PRT
 <213> Homo sapiens

<400> 66
 Met Glu Ser Thr Cys Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys
 1 5 10 15
 Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly
 20 25 30
 Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp
 35 40 45
 Asp Ala Trp Lys Tyr Asn Gly Asp Ile Glu Asp Ile Lys Arg Thr Pro
 50 55 60
 Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu
 65 70 75 80
 Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp
 85 90 95
 Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln
 100 105 110
 Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu
 115 120 125
 Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu
 130 135 140
 Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn
 145 150 155 160
 Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp
 165 170 175
 Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu
 180 185 190
 Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr
 195 200 205

Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys
 210 215 220
 Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys
 225 230 235 240
 Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr
 245 250 255
 Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu
 260 265 270
 Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His
 275 280 285
 Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu
 290 295 300
 Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp
 305 310 315 320
 Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg
 325 330 335
 Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln
 340 345 350
 Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu
 355 360 365
 Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu
 370 375 380
 Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser
 385 390 395 400
 Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr
 405 410 415
 Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly
 420 425 430
 Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln
 435 440 445
 Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp
 450 455 460
 Glu Gln Gln Leu Gln Glu Glu Gln Glu Lys Arg Leu Gln Ala Glu
 465 470 475 480
 Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu
 485 490 495
 Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val
 500 505 510

Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu
 515 520 525
 Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr
 530 535 540
 Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn
 545 550 555 560
 Thr Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly
 565 570 575
 Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr
 580 585 590
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val
 595 600 605
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser
 610 615 620
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro
 625 630 635 640
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp
 645 650 655
 Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr
 660 665 670
 Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val
 675 680 685
 Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg
 690 695 700
 Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Ser
 705 710 715 720
 Trp Thr Ala Asn Arg His Val Met
 725

<210> 67
 <211> 784
 <212> PRT
 <213> Homo sapiens

<400> 67
 Met Glu Ser Thr Arg Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys
 1 5 10 15
 Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly
 20 25 30
 Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp
 35 40 45

Asp Ala Trp Lys Tyr Asn Gly Asp Val Glu Asp Ile Lys Arg Thr Pro
 50 55 60
 Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu
 65 70 75 80
 Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp
 85 90 95
 Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln
 100 105 110
 Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu
 115 120 125
 Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu
 130 135 140
 Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn
 145 150 155 160
 Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp
 165 170 175
 Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu
 180 185 190
 Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr
 195 200 205
 Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys
 210 215 220
 Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys
 225 230 235 240
 Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr
 245 250 255
 Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu
 260 265 270
 Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His
 275 280 285
 Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu
 290 295 300
 Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp
 305 310 315 320
 Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg
 325 330 335
 Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln
 340 345 350

Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu
 355 360 365
 Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu
 370 375 380
 Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser
 385 390 395 400
 Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr
 405 410 415
 Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly
 420 425 430
 Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln
 435 440 445
 Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp
 450 455 460
 Glu Gln Gln Leu Gln Glu Glu Gln Glu Lys Arg Leu Gln Ala Glu
 465 470 475 480
 Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu
 485 490 495
 Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val
 500 505 510
 Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu
 515 520 525
 Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr
 530 535 540
 Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn
 545 550 555 560
 Met Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly
 565 570 575
 Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr
 580 585 590
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val
 595 600 605
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser
 610 615 620
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro
 625 630 635 640
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp
 645 650 655

Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr
 660 665 670

Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val
 675 680 685

Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg
 690 695 700

Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Ser
 705 710 715 720

Val Leu Pro Val Ser Val Thr Ser Glu Ala Leu Pro Gln Glu Leu Lys
 725 730 735

Ser Gly Ser Glu Thr Thr Asn Cys Thr Ala Thr Thr Ala Ile Ser Asp
 740 745 750

Ser Asn Leu Asp Gly Gln Pro Pro Cys Asp Val Ser Leu His Thr Lys
 755 760 765

Ala Leu Leu Gln Ile Glu Glu Glu Val Val Ala Ala His Val Asp Leu
 770 775 780

<210> 68

<211> 71

<212> PRT

<213> Homo sapiens

<400> 68

Leu Gly Phe Ser Leu Val Gly Gly Lys Asp Ser Gly Asp Gly Gly Val
 1 5 10 15

Val Val Ser Ser Val Val Pro Gly Ser Pro Ala Ala Lys Ala Gly Leu
 20 25 30

Lys Pro Gly Asp Val Ile Leu Glu Val Asn Gly Thr Ser Val Glu Gly
 35 40 45

Leu Thr His Leu Glu Ala Val Asp Leu Leu Lys Glu Ala Gly Gly Lys
 50 55 60

Val Thr Leu Thr Val Leu Arg
 65 70

<210> 69

<211> 561

<212> PRT

<213> Mus musculus

<400> 69

Met Ala Val Leu Leu Ala Ala Val Leu Ala Ser Ser Leu Tyr Leu Gln
 1 5 10 15
 Val Ala Ala Asp Phe Asp Gly Arg Trp Pro Arg Gln Ile Val Ser Ser
 20 25 30
 Ile Gly Leu Cys Arg Tyr Gly Gly Arg Ile Asp Cys Cys Trp Gly Trp
 35 40 45
 Ala Arg Gln Ser Trp Gly Gln Cys Gln Pro Val Cys Gln Pro Gln Cys
 50 55 60
 Lys His Gly Glu Cys Val Gly Pro Asn Lys Cys Lys Cys His Pro Gly
 65 70 75 80
 Phe Ala Gly Lys Thr Cys Asn Gln Asp Leu Asn Glu Cys Gly Leu Lys
 85 90 95
 Pro Arg Pro Cys Lys His Arg Cys Met Asn Thr Phe Gly Ser Tyr Lys
 100 105 110
 Cys Tyr Cys Leu Asn Gly Tyr Met Leu Leu Pro Asp Gly Ser Cys Ser
 115 120 125
 Ser Ala Leu Ser Cys Ser Met Ala Asn Cys Gln Tyr Gly Cys Asp Val
 130 135 140
 Val Lys Gly Gln Val Arg Cys Gln Cys Pro Ser Pro Gly Leu Gln Leu
 145 150 155 160
 Ala Pro Asp Gly Arg Thr Cys Val Asp Ile Asp Glu Cys Ala Thr Gly
 165 170 175
 Arg Val Ser Cys Pro Arg Phe Arg Gln Cys Val Asn Thr Phe Gly Ser
 180 185 190
 Tyr Ile Cys Lys Cys His Thr Gly Phe Asp Leu Met Tyr Ile Gly Gly
 195 200 205
 Lys Tyr Gln Cys His Asp Ile Asp Glu Cys Ser Leu Gly Gln His Gln
 210 215 220
 Cys Ser Ser Tyr Ala Arg Cys Tyr Asn Ile His Gly Ser Tyr Lys Cys
 225 230 235 240
 Gln Cys Arg Asp Gly Tyr Glu Gly Asp Gly Leu Asn Cys Val Tyr Ile
 245 250 255
 Pro Lys Val Met Ile Glu Pro Ser Gly Pro Ile His Met Pro Glu Arg
 260 265 270
 Asn Gly Thr Ile Ser Lys Gly Asp Gly Gly His Ala Asn Arg Ile Pro
 275 280 285
 Asp Ala Gly Ser Thr Arg Trp Pro Leu Lys Thr Pro Tyr Ile Pro Pro
 290 295 300

Val Ile Thr Asn Arg Pro Thr Ser Lys Pro Thr Thr Arg Pro Thr Pro
 305 310 315 320
 Asn Pro Thr Pro Gln Pro Thr Pro Pro Pro Pro Pro Leu Pro Thr
 325 330 335
 Glu Pro Arg Thr Thr Pro Leu Pro Pro Thr Pro Glu Arg Pro Ser Thr
 340 345 350
 Arg Pro Thr Thr Ile Ala Pro Ala Thr Ser Thr Thr Thr Arg Val Ile
 355 360 365
 Thr Val Asp Asn Arg Ile Gln Thr Asp Pro Gln Lys Pro Arg Gly Asp
 370 375 380
 Val Phe Ile Pro Arg Gln Pro Thr Asn Asp Leu Phe Glu Ile Phe Glu
 385 390 395 400
 Ile Glu Arg Gly Val Ser Ala Asp Glu Glu Val Lys Asp Asp Pro Gly
 405 410 415
 Ile Leu Ile His Ser Cys Asn Phe Asp His Gly Leu Cys Gly Trp Ile
 420 425 430
 Arg Glu Lys Asp Ser Asp Leu His Trp Glu Thr Ala Arg Asp Pro Ala
 435 440 445
 Gly Gly Gln Tyr Leu Thr Val Ser Ala Ala Lys Ala Pro Gly Gly Lys
 450 455 460
 Ala Ala Arg Leu Val Leu Arg Leu Gly His Leu Met His Ser Gly Asp
 465 470 475 480
 Leu Cys Leu Ser Phe Arg His Lys Val Thr Gly Leu His Ser Gly Thr
 485 490 495
 Leu Gln Val Phe Val Arg Lys His Gly Thr His Gly Ala Ala Leu Trp
 500 505 510
 Gly Arg Asn Gly Gly His Gly Trp Arg Gln Thr Gln Ile Thr Leu Arg
 515 520 525
 Gly Ala Asp Val Lys Ser Val Ile Phe Lys Gly Glu Lys Arg Arg Gly
 530 535 540
 His Thr Gly Glu Ile Gly Leu Asp Asp Val Ser Leu Lys Arg Gly Arg
 545 550 555 560
 Cys

<210> 70
 <211> 578
 <212> PRT
 <213> Mus musculus

<400> 70
 Met Ala Val Leu Leu Ala Ala Val Leu Ala Ser Ser Leu Tyr Leu Gln
 1 5 10 15
 Val Ala Ala Asp Phe Asp Gly Arg Trp Pro Arg Gln Ile Val Ser Ser
 20 25 30
 Ile Gly Leu Cys Arg Tyr Gly Gly Arg Ile Asp Cys Cys Trp Gly Trp
 35 40 45
 Ala Arg Gln Ser Trp Gly Gln Cys Gln Pro Phe Tyr Val Leu Arg Gln
 50 55 60
 Arg Leu Ala Arg Ile Arg Cys Gln Leu Lys Ala Val Cys Gln Pro Gln
 65 70 75 80
 Cys Lys His Gly Glu Cys Val Gly Pro Asn Lys Cys Lys Cys His Pro
 85 90 95
 Gly Phe Ala Gly Lys Thr Cys Asn Gln Asp Leu Asn Glu Cys Gly Leu
 100 105 110
 Lys Pro Arg Pro Cys Lys His Arg Cys Met Asn Thr Phe Gly Ser Tyr
 115 120 125
 Lys Cys Tyr Cys Leu Asn Gly Tyr Met Leu Leu Pro Asp Gly Ser Cys
 130 135 140
 Ser Ser Ala Leu Ser Cys Ser Met Ala Asn Cys Gln Tyr Gly Cys Asp
 145 150 155 160
 Val Val Lys Gly Gln Val Arg Cys Gln Cys Pro Ser Pro Gly Leu Gln
 165 170 175
 Leu Ala Pro Asp Gly Arg Thr Cys Val Asp Ile Asp Glu Cys Ala Thr
 180 185 190
 Gly Arg Val Ser Cys Pro Arg Phe Arg Gln Cys Val Asn Thr Phe Gly
 195 200 205
 Ser Tyr Ile Cys Lys Cys His Thr Gly Phe Asp Leu Met Tyr Ile Gly
 210 215 220
 Gly Lys Tyr Gln Cys His Asp Ile Asp Glu Cys Ser Leu Gly Gln His
 225 230 235 240
 Gln Cys Ser Ser Tyr Ala Arg Cys Tyr Asn Ile His Gly Ser Tyr Lys
 245 250 255
 Cys Gln Cys Arg Asp Gly Tyr Glu Gly Asp Gly Leu Asn Cys Val Tyr
 260 265 270
 Ile Pro Lys Val Met Ile Glu Pro Ser Gly Pro Ile His Met Pro Glu
 275 280 285
 Arg Asn Gly Thr Ile Ser Lys Gly Asp Gly Gly His Ala Asn Arg Ile
 290 295 300

Pro Asp Ala Gly Ser Thr Arg Trp Pro Leu Lys Thr Pro Tyr Ile Pro
 305 310 315 320
 Pro Val Ile Thr Asn Arg Pro Thr Ser Lys Pro Thr Thr Arg Pro Thr
 325 330 335
 Pro Asn Pro Thr Pro Gln Pro Thr Pro Pro Pro Pro Pro Leu Pro
 340 345 350
 Thr Glu Pro Arg Thr Thr Pro Leu Pro Pro Thr Pro Glu Arg Pro Ser
 355 360 365
 Thr Arg Pro Thr Thr Ile Ala Pro Ala Thr Ser Thr Thr Thr Arg Val
 370 375 380
 Ile Thr Val Asp Asn Arg Ile Gln Thr Asp Pro Gln Lys Pro Arg Gly
 385 390 395 400
 Asp Val Phe Ile Pro Arg Gln Pro Thr Asn Asp Leu Phe Glu Ile Phe
 405 410 415
 Glu Ile Glu Arg Gly Val Ser Ala Asp Glu Glu Val Lys Asp Asp Pro
 420 425 430
 Gly Ile Leu Ile His Ser Cys Asn Phe Asp His Gly Leu Cys Gly Trp
 435 440 445
 Ile Arg Glu Lys Asp Ser Asp Leu His Trp Glu Thr Ala Arg Asp Pro
 450 455 460
 Ala Gly Gly Gln Tyr Leu Thr Val Ser Ala Ala Lys Ala Pro Gly Gly
 465 470 475 480
 Lys Ala Ala Arg Leu Val Leu Arg Leu Gly His Leu Met His Ser Gly
 485 490 495
 Asp Leu Cys Leu Ser Phe Arg His Lys Val Thr Gly Leu His Ser Gly
 500 505 510
 Thr Leu Gln Val Phe Val Arg Lys His Gly Thr His Gly Ala Ala Leu
 515 520 525
 Trp Gly Arg Asn Gly Gly His Gly Trp Arg Gln Thr Gln Ile Thr Leu
 530 535 540
 Arg Gly Ala Asp Val Lys Ser Val Ile Phe Lys Gly Glu Lys Arg Arg
 545 550 555 560
 Gly His Thr Gly Glu Ile Gly Leu Asp Asp Val Ser Leu Lys Arg Gly
 565 570 575
 Arg Cys

98

275 280 285
 Lys Val Met Ile Glu Pro Ser Gly Pro Ile His Met Pro Glu Arg Asn
 290 295 300
 Gly Thr Ile Ser Lys Gly Asp Gly Gly His Ala Asn Arg Ile Pro Asp
 305 310 315 320
 Ala Gly Ser Thr Arg Trp Pro Leu Lys Thr Pro Tyr Ile Pro Pro Val
 325 330 335
 Ile Thr Asn Arg Pro Thr Ser Lys Pro Thr Thr Arg Pro Thr Pro Asn
 340 345 350
 Pro Thr Pro Gln Pro Thr Pro Pro Pro Pro Pro Pro Leu Pro Thr Glu
 355 360 365
 Pro Arg Thr Thr Pro Leu Pro Pro Thr Pro Glu Arg Pro Ser Thr Arg
 370 375 380
 Pro Thr Thr Ile Ala Pro Ala Thr Ser Thr Thr Thr Arg Val Ile Thr
 385 390 395 400
 Val Asp Asn Arg Ile Gln Thr Asp Pro Gln Lys Pro Arg Gly Asp Val
 405 410 415
 Phe Ile Pro Arg Gln Pro Thr Asn Asp Leu Phe Glu Ile Phe Glu Ile
 420 425 430
 Glu Arg Gly Val Ser Ala Asp Glu Glu Val Lys Asp Asp Pro Gly Ile
 435 440 445
 Leu Ile His Ser Cys Asn Phe Asp His Gly Leu Cys Gly Trp Ile Arg
 450 455 460
 Glu Lys Asp Ser Asp Leu His Trp Glu Thr Ala Arg Asp Pro Ala Gly
 465 470 475 480
 Gly Gln Tyr Leu Thr Val Ser Ala Ala Lys Ala Pro Gly Gly Lys Ala
 485 490 495
 Ala Arg Leu Val Leu Arg Leu Gly His Leu Met His Ser Gly Asp Leu
 500 505 510
 Cys Leu Ser Phe Arg His Lys Val Thr Gly Leu His Ser Gly Thr Leu
 515 520 525
 Gln Val Phe Val Arg Lys His Gly Thr His Gly Ala Ala Leu Trp Gly
 530 535 540
 Arg Asn Gly Gly His Gly Trp Arg Gln Thr Gln Ile Thr Leu Arg Gly
 545 550 555 560
 Ala Asp Val Lys Ser Val Ile Phe Lys Gly Glu Lys Arg Arg Gly His
 565 570 575
 Thr Gly Glu Ile Gly Leu Asp Asp Val Ser Leu Lys Arg Gly Arg Cys

Tyr Ile Cys Lys Cys His Thr Gly Phe Asp Leu Met Tyr Ile Gly Gly
 245 250 255
 Lys Tyr Gln Cys His Asp Ile Asp Glu Cys Ser Leu Gly Gln His Gln
 260 265 270
 Cys Ser Ser Tyr Ala Arg Cys Tyr Asn Ile His Gly Ser Tyr Lys Cys
 275 280 285
 Gln Cys Arg Asp Gly Tyr Glu Gly Asp Gly Leu Asn Cys Val Tyr Ile
 290 295 300
 Pro Lys Val Met Ile Glu Pro Ser Gly Pro Ile His Met Pro Glu Arg
 305 310 315 320
 Asn Gly Thr Ile Ser Lys Gly Asp Gly Gly His Ala Asn Arg Ile Pro
 325 330 335
 Asp Ala Gly Ser Thr Arg Trp Pro Leu Lys Thr Pro Tyr Ile Pro Pro
 340 345 350
 Val Ile Thr Asn Arg Pro Thr Ser Lys Pro Thr Thr Arg Pro Thr Pro
 355 360 365
 Asn Pro Thr Pro Gln Pro Thr Pro Pro Pro Pro Pro Pro Leu Pro Thr
 370 375 380
 Glu Pro Arg Thr Thr Pro Leu Pro Pro Thr Pro Glu Arg Pro Ser Thr
 385 390 395 400
 Arg Pro Thr Thr Ile Ala Pro Ala Thr Ser Thr Thr Thr Arg Val Ile
 405 410 415
 Thr Val Asp Asn Arg Ile Gln Thr Asp Pro Gln Lys Pro Arg Gly Asp
 420 425 430
 Val Phe Ile Pro Arg Gln Pro Thr Asn Asp Leu Phe Glu Ile Phe Glu
 435 440 445
 Ile Glu Arg Gly Val Ser Ala Asp Glu Glu Val Lys Asp Asp Pro Gly
 450 455 460
 Ile Leu Ile His Ser Cys Asn Phe Asp His Gly Leu Cys Gly Trp Ile
 465 470 475 480
 Arg Glu Lys Asp Ser Asp Leu His Trp Glu Thr Ala Arg Asp Pro Ala
 485 490 495
 Gly Gly Gln Tyr Leu Thr Val Ser Ala Ala Lys Ala Pro Gly Gly Lys
 500 505 510
 Ala Ala Arg Leu Val Leu Arg Leu Gly His Leu Met His Ser Gly Asp
 515 520 525
 Leu Cys Leu Ser Phe Arg His Lys Val Thr Gly Leu His Ser Gly Thr
 530 535 540

Leu Gln Val Phe Val Arg Lys His Gly Thr His Gly Ala Ala Leu Trp
 545 550 555 560

Gly Arg Asn Gly Gly His Gly Trp Arg Gln Thr Gln Ile Thr Leu Arg
 565 570 575

Gly Ala Asp Val Lys Ser Val Ile Phe Lys Gly Glu Lys Arg Arg Gly
 580 585 590

His Thr Gly Glu Ile Gly Leu Asp Asp Val Ser Leu Lys Arg Gly Arg
 595 600 605

Cys

<210> 73

<211> 550

<212> PRT

<213> Mus musculus

<400> 73

Met Gln Pro Pro Trp Gly Leu Ala Leu Pro Leu Leu Leu Pro Trp Val
 1 5 10 15

Thr Gly Gly Val Gly Thr Ser Pro Trp Asp Tyr Gly Leu Ser Ala Leu
 20 25 30

Ala His Gln Pro Gly Val Cys Gln Tyr Gly Thr Lys Met Ala Cys Cys
 35 40 45

Tyr Gly Trp Lys Arg Asn Asn Lys Gly Val Cys Glu Ala Met Cys Glu
 50 55 60

Pro Arg Cys Lys Phe Gly Glu Cys Val Gly Pro Asn Lys Cys Arg Cys
 65 70 75 80

Phe Pro Gly Tyr Thr Gly Lys Thr Cys Thr Gln Asp Val Asn Glu Cys
 85 90 95

Gly Val Lys Pro Arg Pro Cys Gln His Arg Cys Val Asn Thr His Gly
 100 105 110

Ser Tyr Lys Cys Phe Cys Leu Ser Gly His Met Leu Leu Pro Asp Ala
 115 120 125

Thr Cys Ser Asn Ser Arg Thr Cys Ala Arg Leu Asn Cys Gln Tyr Gly
 130 135 140

Cys Glu Asp Thr Glu Glu Gly Pro Arg Cys Val Cys Pro Ser Ser Gly
 145 150 155 160

Leu Arg Leu Gly Pro Asn Gly Arg Val Cys Leu Asp Ile Asp Glu Cys
 165 170 175

Ala Ser Ser Lys Ala Val Cys Pro Ser Asn Arg Arg Cys Val Asn Thr
 180 185 190

Phe Gly Ser Tyr Tyr Cys Lys Cys His Ile Gly Phe Glu Leu Lys Tyr
 195 200 205
 Ile Gly Arg Arg Tyr Asp Cys Val Asp Ile Asn Glu Cys Ala Leu Asn
 210 215 220
 Thr His Pro Cys Ser Pro His Ala Asn Cys Leu Asn Thr Arg Gly Ser
 225 230 235 240
 Phe Lys Cys Lys Cys Lys Gln Gly Tyr Arg Gly Asn Gly Leu Gln Cys
 245 250 255
 Ser Val Ile Pro Glu His Ser Val Lys Glu Ile Leu Thr Ala Pro Gly
 260 265 270
 Thr Ile Lys Asp Arg Ile Lys Lys Leu Leu Ala His Lys Arg Thr Met
 275 280 285
 Lys Lys Lys Val Lys Leu Lys Met Val Thr Pro Arg Pro Ala Ser Thr
 290 295 300
 Arg Val Pro Lys Val Asn Leu Pro Tyr Ser Ser Glu Glu Gly Val Ser
 305 310 315 320
 Arg Gly Arg Asn Tyr Asp Gly Glu Gln Lys Lys Lys Glu Glu Gly Lys
 325 330 335
 Arg Glu Arg Leu Glu Glu Glu Lys Gly Glu Lys Thr Leu Arg Asn Glu
 340 345 350
 Val Glu Gln Glu Arg Thr Leu Arg Gly Asp Val Phe Ser Pro Lys Val
 355 360 365
 Asn Glu Ala Glu Asp Leu Asp Leu Val Tyr Val Gln Arg Lys Glu Leu
 370 375 380
 Asn Ser Lys Leu Lys His Lys Asp Leu Asn Ile Ser Val Asp Cys Ser
 385 390 395 400
 Phe Asp Leu Gly Val Cys Asp Trp Lys Gln Asp Arg Glu Asp Asp Phe
 405 410 415
 Asp Trp His Pro Ala Asp Arg Asp Asn Asp Val Gly Tyr Tyr Met Ala
 420 425 430
 Val Pro Ala Leu Ala Gly His Lys Lys Asn Ile Gly Arg Leu Lys Leu
 435 440 445
 Leu Leu Pro Asn Leu Thr Pro Gln Ser Asn Phe Cys Leu Leu Phe Asp
 450 455 460
 Tyr Arg Leu Ala Gly Asp Lys Val Gly Lys Leu Arg Val Phe Val Lys
 465 470 475 480
 Asn Ser Asn Asn Ala Leu Ala Trp Glu Glu Thr Lys Asn Glu Asp Gly
 485 490 495

Arg Trp Arg Thr Gly Lys Ile Gln Leu Tyr Gln Gly Ile Asp Thr Thr
500 505 510

Lys Ser Val Ile Phe Glu Ala Glu Arg Gly Lys Gly Lys Thr Gly Glu
515 520 525

Ile Ala Val Asp Gly Val Leu Leu Val Ser Gly Leu Cys Pro Asp Asp
530 535 540

Phe Leu Ser Val Glu Gly
545 550

<210> 74
<211> 158
<212> PRT
<213> Homo sapiens

<400> 74
Gly Asn Cys Asp Phe Glu Glu Gly Asn Thr Cys Gly Trp His Gln Asp
1 5 10 15

Ser Asn Asp Asp Gly Pro Trp Glu Arg Val Ser Ser Ala Thr Arg Asn
20 25 30

Asp Gly Pro Asn Arg Asp His Thr Thr Gly Asn Gly His Tyr Met Phe
35 40 45

Phe Glu Thr Ser Ser Gly Lys Pro Gly Gln Thr Ala Arg Leu Leu Ser
50 55 60

Pro Pro Leu Tyr Glu Asn Arg Ser Thr His Cys Leu Thr Phe Trp Tyr
65 70 75 80

Tyr Met Tyr Gly Ser Gly Val Gly Thr Leu Asn Val Tyr Val Arg Val
85 90 95

Asn Asn Gly Pro Gln Asp Thr Leu Leu Trp Ser Arg Ser Gly Thr Gln
100 105 110

Gly Gly Gln Trp Leu Gln Ala Glu Val Ala Leu Ser Thr Ser Pro Gln
115 120 125

Pro Phe Gln Val Val Phe Glu Gly Thr Arg Gly Gly Gly Pro Ser Gly
130 135 140

Tyr Ile Ala Leu Asp Asp Ile Leu Leu Ser Asn Gly Pro Cys
145 150 155

<210> 75
<211> 159
<212> PRT
<213> Homo sapiens

<400> 75

Cys Asp Phe Glu Asp Gly Ser His Cys Gly Trp Ser Gln Asp Ser Gly
 1 5 10 15
 Asp Asp Leu Asp Trp Thr Arg Val Asn Ser Ala Thr Gly Gly Ser Thr
 20 25 30
 Gly Pro Arg Gly Asp His Thr Thr Gly Asn Gly His Tyr Met Tyr Val
 35 40 45
 Asp Thr Ser Ser Gly Gln Glu Gly Gln Thr Ala Arg Leu Leu Ser Pro
 50 55 60
 Pro Leu Pro Pro Lys Arg Ser Pro Cys Cys Leu Thr Phe Trp Tyr His
 65 70 75 80
 Met Tyr Gly Ser Gly Val Gly Thr Leu Asn Val Tyr Val Arg Glu Asn
 85 90 95
 Gly Gly Pro Ser Asp Arg Leu Leu Trp Ser Arg Ser Gly His Gln Gly
 100 105 110
 Gly Ser Trp Leu Leu Ala Glu Val Thr Leu Pro Thr Ser Thr Lys Pro
 115 120 125
 Phe Gln Val Val Phe Glu Gly Thr Arg Gly Gly Gly Ser Arg Gly Gly
 130 135 140
 Ile Ala Leu Asp Asp Ile Ser Leu Ser Glu Gly Pro Cys Asn Gln
 145 150 155

<210> 76
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 76
 Asp Ile Asp Glu Cys Ala Ser Gly Asn Pro Cys Gln Asn Gly Gly Thr
 1 5 10 15
 Cys Val Asn Thr Val Gly Ser Tyr Arg Cys Glu Glu Cys Pro Pro Gly
 20 25 30
 Tyr Thr Leu Asp Gly Arg Asn Cys Glu
 35 40

<210> 77
 <211> 709
 <212> PRT
 <213> Homo sapiens

<400> 77
 Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
 1 5 10 15
 Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Leu Glu Val Leu

20										25										30																																		
Lys	Gly	Pro	Val	Ser	Phe	Gln	Lys	Ser	Gln	Arg	Phe	Lys	Gln	Gln	Lys																																							
35										40										45																																		
Glu	Ser	Lys	Gln	Asn	Leu	Asn	Val	Asp	Lys	Asp	Thr	Thr	Leu	Pro	Ala																																							
50										55										60																																		
Ser	Ala	Arg	Lys	Val	Lys	Ser	Ser	Glu	Ser	Lys	Ile	Arg	Val	Leu	Leu																																							
65										70										75										80																								
Gln	Glu	Arg	Gly	Ala	Gln	Asp	Ser	Arg	Ile	Gln	Asp	Leu	Glu	Thr	Glu																																							
85										90										95																																		
Leu	Glu	Lys	Met	Glu	Ala	Arg	Leu	Asn	Ala	Ala	Leu	Arg	Glu	Lys	Thr																																							
100										105										110																																		
Ser	Leu	Ser	Ala	Asn	Asn	Ala	Thr	Leu	Glu	Lys	Gln	Leu	Ile	Glu	Leu																																							
115										120										125																																		
Thr	Arg	Thr	Asn	Glu	Leu	Leu	Lys	Ser	Lys	Phe	Ser	Glu	Asn	Gly	Asn																																							
130										135										140																																		
Gln	Lys	Asn	Leu	Arg	Ile	Leu	Ser	Leu	Glu	Leu	Met	Lys	Leu	Arg	Asn																																							
145										150										155										160																								
Lys	Arg	Glu	Thr	Lys	Met	Arg	Gly	Met	Met	Ala	Lys	Gln	Glu	Gly	Met																																							
165										170										175																																		
Glu	Met	Lys	Leu	Gln	Val	Thr	Gln	Arg	Ser	Leu	Glu	Glu	Ser	Gln	Gly																																							
180										185										190																																		
Lys	Ile	Ala	Gln	Leu	Glu	Gly	Lys	Leu	Val	Ser	Ile	Glu	Lys	Glu	Lys																																							
195										200										205																																		
Ile	Asp	Glu	Lys	Ser	Glu	Thr	Glu	Lys	Leu	Leu	Glu	Tyr	Ile	Glu	Glu																																							
210										215										220																																		
Ile	Ser	Cys	Ala	Ser	Asp	Gln	Val	Glu	Lys	Tyr	Lys	Leu	Asp	Ile	Ala																																							
225										230										235										240																								
Gln	Leu	Glu	Glu	Asn	Leu	Lys	Glu	Lys	Asn	Asp	Glu	Ile	Leu	Ser	Leu																																							
245										250										255																																		
Lys	Gln	Ser	Leu	Glu	Glu	Asn	Ile	Val	Ile	Leu	Ser	Lys	Gln	Val	Glu																																							
260										265										270																																		
Asp	Leu	Asn	Val	Lys	Cys	Gln	Leu	Leu	Glu	Lys	Glu	Lys	Glu	Asp	His																																							
275										280										285																																		
Val	Asn	Arg	Asn	Arg	Glu	His	Asn	Glu	Asn	Leu	Asn	Ala	Glu	Met	Gln																																							
290										295										300																																		
Asn	Leu	Lys	Gln	Lys	Phe	Ile	Leu	Glu	Gln	Gln	Glu	Arg	Glu	Lys	Leu																																							
305										310										315										320																								
Gln	Gln	Lys	Glu	Leu	Gln	Ile	Asp	Ser	Leu	Leu	Gln	Gln	Glu	Lys	Glu																																							

625						630						635						640
Ser	Lys	Leu	Arg	Cys	Gln	Leu	Ala	Lys	Lys	Lys	Gln	Ser	Glu	Thr	Lys			
				645					650					655				
Leu	Gln	Glu	Glu	Leu	Asn	Lys	Val	Leu	Gly	Ile	Lys	His	Phe	Asp	Pro			
				660					665					670				
Ser	Lys	Ala	Phe	His	His	Glu	Ser	Lys	Glu	Asn	Phe	Ala	Leu	Lys	Thr			
				675					680					685				
Pro	Leu	Lys	Glu	Gly	Asn	Thr	Asn	Cys	Tyr	Arg	Ala	Pro	Met	Glu	Cys			
				690					695					700				
Gln	Glu	Ser	Trp	Lys														
705																		

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<210> 78
<211> 725
<212> PRT
<213> Homo sapiens
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<400> 78
Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
  1          5          10          15
Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Leu Glu Val Leu
          20          25          30
Lys Gly Pro Val Ser Phe Gln Lys Ser Gln Arg Phe Lys Gln Gln Lys
          35          40          45
Glu Ser Lys Gln Asn Leu Asn Val Asp Lys Asp Thr Thr Leu Pro Ala
          50          55          60
Ser Ala Arg Lys Val Lys Ser Ser Glu Ser Lys Lys Glu Ser Gln Lys
          65          70          75          80
Asn Asp Lys Asp Leu Lys Ile Leu Glu Lys Glu Ile Arg Val Leu Leu
          85          90          95
Gln Glu Arg Gly Ala Gln Asp Arg Arg Ile Gln Asp Leu Glu Thr Glu
          100          105          110
Leu Glu Lys Met Glu Ala Arg Leu Asn Ala Ala Leu Arg Glu Lys Thr
          115          120          125
Ser Leu Ser Ala Asn Asn Ala Thr Leu Glu Lys Gln Leu Ile Glu Leu
          130          135          140
Thr Arg Thr Asn Glu Leu Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn
          145          150          155          160
Gln Lys Asn Leu Arg Ile Leu Ser Leu Glu Leu Met Lys Leu Arg Asn
          165          170          175

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Lys Arg Glu Thr Lys Met Arg Gly Met Met Ala Lys Gln Glu Gly Met
 180 185 190
 Glu Met Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Ser Gln Gly
 195 200 205
 Lys Ile Ala Gln Leu Glu Gly Lys Leu Val Ser Ile Glu Lys Glu Lys
 210 215 220
 Ile Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu Glu
 225 230 235 240
 Ile Ser Cys Ala Ser Asp Gln Val Glu Lys Tyr Lys Leu Asp Ile Ala
 245 250 255
 Gln Leu Glu Glu Asn Leu Lys Glu Lys Asn Asp Glu Ile Leu Ser Leu
 260 265 270
 Lys Gln Ser Leu Glu Asp Asn Ile Val Ile Leu Ser Lys Gln Val Glu
 275 280 285
 Asp Leu Asn Val Lys Cys Gln Leu Leu Glu Thr Glu Lys Glu Asp His
 290 295 300
 Val Asn Arg Asn Arg Glu His Asn Glu Asn Leu Asn Ala Glu Met Gln
 305 310 315 320
 Asn Leu Glu Gln Lys Phe Ile Leu Glu Gln Arg Glu His Glu Lys Leu
 325 330 335
 Gln Gln Lys Glu Leu Gln Ile Asp Ser Leu Leu Gln Gln Glu Lys Glu
 340 345 350
 Leu Ser Ser Ser Leu His Gln Lys Leu Cys Ser Phe Gln Glu Glu Met
 355 360 365
 Val Lys Glu Lys Asn Leu Phe Glu Glu Glu Leu Lys Gln Thr Leu Asp
 370 375 380
 Glu Leu Asp Lys Leu Gln Gln Lys Glu Glu Gln Ala Glu Arg Leu Val
 385 390 395 400
 Lys Gln Leu Glu Glu Glu Ala Lys Ser Arg Ala Glu Glu Leu Lys Leu
 405 410 415
 Leu Glu Glu Lys Leu Lys Gly Lys Glu Ala Glu Leu Glu Lys Ser Ser
 420 425 430
 Ala Ala His Thr Gln Ala Thr Leu Leu Leu Gln Glu Lys Tyr Asp Ser
 435 440 445
 Met Val Gln Ser Leu Glu Asp Val Thr Ala Gln Phe Glu Ser Tyr Lys
 450 455 460
 Ala Leu Thr Ala Ser Glu Ile Glu Asp Leu Lys Leu Glu Asn Ser Ser
 465 470 475 480

Leu Gln Glu Lys Ala Ala Lys Ala Gly Lys Asn Ala Glu Asp Val Gln
 485 490 495
 His Gln Ile Leu Ala Thr Glu Ser Ser Asn Gln Glu Tyr Val Arg Met
 500 505 510
 Leu Leu Asp Leu Gln Thr Lys Ser Ala Leu Lys Glu Thr Glu Ile Lys
 515 520 525
 Glu Ile Thr Val Ser Phe Leu Gln Lys Ile Thr Asp Leu Gln Asn Gln
 530 535 540
 Leu Lys Gln Gln Glu Glu Asp Phe Arg Lys Gln Leu Glu Asp Glu Glu
 545 550 555 560
 Gly Arg Lys Ala Glu Lys Glu Asn Thr Thr Ala Glu Leu Thr Glu Glu
 565 570 575
 Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Asn Lys Thr Lys
 580 585 590
 Pro Phe Gln Leu Gln Leu Asp Ala Phe Glu Val Glu Lys Gln Ala Leu
 595 600 605
 Leu Asn Glu His Gly Ala Ala Gln Glu Gln Leu Asn Lys Ile Arg Asp
 610 615 620
 Ser Tyr Ala Lys Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys
 625 630 635 640
 His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val
 645 650 655
 Ser Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr Lys
 660 665 670
 Leu Gln Glu Glu Leu Asn Lys Val Leu Gly Ile Lys His Phe Asp Pro
 675 680 685
 Ser Lys Ala Phe His His Glu Ser Lys Glu Asn Phe Ala Leu Lys Thr
 690 695 700
 Pro Leu Lys Glu Gly Asn Thr Asn Cys Tyr Arg Ala Pro Met Glu Cys
 705 710 715 720
 Gln Glu Ser Trp Lys
 725

<210> 79
 <211> 725
 <212> PRT
 <213> Homo sapiens

<400> 79
 Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
 1 5 10 15

Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Leu Glu Val Leu
 20 25 30
 Lys Gly Pro Val Ser Phe Gln Lys Ser Gln Arg Phe Lys Gln Gln Lys
 35 40 45
 Glu Ser Lys Gln Asn Leu Asn Val Asp Lys Asp Thr Thr Leu Pro Ala
 50 55 60
 Ser Ala Arg Lys Val Lys Ser Ser Glu Ser Lys Lys Glu Ser Gln Lys
 65 70 75 80
 Asn Asp Lys Asp Leu Lys Ile Leu Glu Lys Glu Ile Arg Val Leu Leu
 85 90 95
 Gln Glu Arg Gly Ala Gln Asp Arg Arg Ile Gln Asp Leu Glu Thr Glu
 100 105 110
 Leu Glu Lys Met Glu Ala Arg Leu Asn Ala Ala Leu Arg Glu Lys Thr
 115 120 125
 Ser Leu Ser Ala Asn Asn Ala Thr Leu Glu Lys Gln Leu Ile Glu Leu
 130 135 140
 Thr Arg Thr Asn Glu Leu Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn
 145 150 155 160
 Gln Lys Asn Leu Arg Ile Leu Ser Leu Glu Leu Met Lys Leu Arg Asn
 165 170 175
 Lys Arg Glu Thr Lys Met Arg Gly Met Met Ala Lys Gln Glu Gly Met
 180 185 190
 Glu Met Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Ser Gln Gly
 195 200 205
 Lys Ile Ala Gln Leu Glu Gly Lys Leu Val Ser Ile Glu Lys Glu Lys
 210 215 220
 Ile Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu Glu
 225 230 235 240
 Ile Ser Cys Ala Ser Asp Gln Val Glu Lys Tyr Lys Leu Asp Ile Ala
 245 250 255
 Gln Leu Glu Glu Asn Leu Lys Glu Lys Asn Asp Glu Ile Leu Ser Leu
 260 265 270
 Lys Gln Ser Leu Glu Glu Asn Ile Val Ile Leu Ser Lys Gln Val Glu
 275 280 285
 Asp Leu Asn Val Lys Cys Gln Leu Leu Glu Lys Glu Lys Glu Asp His
 290 295 300
 Val Asn Arg Asn Arg Glu His Asn Glu Asn Leu Asn Ala Glu Met Gln
 305 310 315 320

Asn Leu Lys Gln Lys Phe Ile Leu Glu Gln Gln Glu His Glu Lys Leu
 325 330 335
 Gln Gln Lys Glu Leu Gln Ile Asp Ser Leu Leu Gln Gln Glu Lys Glu
 340 345 350
 Leu Ser Ser Ser Leu His Gln Lys Leu Cys Ser Phe Gln Glu Glu Met
 355 360 365
 Val Lys Glu Lys Asn Leu Phe Glu Glu Glu Leu Lys Gln Thr Leu Asp
 370 375 380
 Glu Leu Asp Lys Leu Gln Gln Lys Glu Glu Gln Ala Glu Arg Leu Val
 385 390 395 400
 Lys Gln Leu Glu Glu Glu Ala Lys Ser Arg Ala Glu Glu Leu Lys Leu
 405 410 415
 Leu Glu Glu Lys Leu Lys Gly Lys Glu Ala Glu Leu Glu Lys Ser Ser
 420 425 430
 Ala Ala His Thr Gln Ala Thr Leu Leu Leu Gln Glu Lys Tyr Asp Ser
 435 440 445
 Met Val Gln Ser Leu Glu Asp Val Thr Ala Gln Phe Glu Ser Tyr Lys
 450 455 460
 Ala Leu Thr Ala Ser Glu Ile Glu Asp Leu Lys Leu Glu Asn Ser Ser
 465 470 475 480
 Leu Gln Glu Lys Ala Ala Lys Ala Gly Lys Asn Ala Glu Asp Val Gln
 485 490 495
 His Gln Ile Leu Ala Thr Glu Ser Ser Asn Gln Glu Tyr Val Arg Met
 500 505 510
 Leu Leu Asp Leu Gln Thr Lys Ser Ala Leu Lys Glu Thr Glu Ile Lys
 515 520 525
 Glu Ile Thr Val Ser Phe Leu Gln Lys Ile Thr Asp Leu Gln Asn Gln
 530 535 540
 Leu Lys Gln Gln Glu Glu Asp Phe Arg Lys Gln Leu Glu Asp Glu Glu
 545 550 555 560
 Gly Arg Lys Ala Glu Lys Glu Asn Thr Thr Ala Glu Leu Thr Glu Glu
 565 570 575
 Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Asn Lys Thr Lys
 580 585 590
 Pro Phe Gln Leu Gln Leu Asp Ala Phe Glu Val Glu Lys Gln Ala Leu
 595 600 605
 Leu Asn Glu His Gly Ala Ala Gln Glu Gln Leu Asn Lys Ile Arg Asp
 610 615 620

Ser Tyr Ala Lys Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys
625 630 635 640

His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val
645 650 655

Ser Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr Lys
660 665 670

Leu Gln Glu Glu Leu Asn Lys Val Leu Gly Ile Lys His Phe Asp Pro
675 680 685

Ser Lys Ala Phe His His Glu Ser Lys Glu Asn Phe Ala Leu Lys Thr
690 695 700

Pro Leu Lys Glu Gly Asn Thr Asn Cys Tyr Arg Ala Pro Met Glu Cys
705 710 715 720

Gln Glu Ser Trp Lys
725

<210> 80

<211> 724

<212> PRT

<213> Homo sapiens

<400> 80

Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
1 5 10 15

Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Leu Glu Val Leu
20 25 30

Lys Gly Pro Val Ser Phe Gln Lys Ser Gln Arg Phe Lys Gln Gln Lys
35 40 45

Glu Ser Lys Gln Asn Leu Asn Val Asp Lys Asp Thr Thr Leu Pro Ala
50 55 60

Ser Ala Arg Lys Val Lys Ser Ser Glu Ser Lys Glu Ser Gln Lys Asn
65 70 75 80

Asp Lys Asp Leu Lys Ile Leu Glu Lys Glu Ile Arg Val Leu Leu Gln
85 90 95

Glu Arg Gly Ala Gln Asp Ser Arg Ile Gln Asp Leu Glu Thr Glu Leu
100 105 110

Glu Lys Met Glu Ala Arg Leu Asn Ala Ala Leu Arg Glu Lys Thr Ser
115 120 125

Leu Ser Ala Asn Asn Ala Thr Leu Glu Lys Gln Leu Ile Glu Leu Thr
130 135 140

Arg Thr Asn Glu Leu Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn Gln

145 150 155 160
 Lys Asn Leu Arg Ile Leu Ser Leu Glu Leu Met Lys Leu Arg Asn Lys
 165 170 175
 Arg Glu Thr Lys Met Arg Gly Met Met Ala Lys Gln Glu Gly Met Glu
 180 185 190
 Met Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Ser Gln Gly Lys
 195 200 205
 Ile Ala Gln Leu Glu Gly Lys Leu Val Ser Ile Glu Lys Glu Lys Ile
 210 215 220
 Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu Glu Ile
 225 230 235 240
 Ser Cys Ala Ser Asp Gln Val Glu Lys Tyr Lys Leu Asp Ile Ala Gln
 245 250 255
 Leu Glu Glu Asn Leu Lys Glu Lys Asn Asp Glu Ile Leu Ser Leu Lys
 260 265 270
 Gln Ser Leu Glu Glu Asn Ile Val Ile Leu Ser Lys Gln Val Glu Asp
 275 280 285
 Leu Asn Val Lys Cys Gln Leu Leu Glu Lys Glu Lys Glu Asp His Val
 290 295 300
 Asn Arg Asn Arg Glu His Asn Glu Asn Leu Asn Ala Glu Met Gln Asn
 305 310 315 320
 Leu Lys Gln Lys Phe Ile Leu Glu Gln Gln Glu Arg Glu Lys Leu Gln
 325 330 335
 Gln Lys Glu Leu Gln Ile Asp Ser Leu Leu Gln Gln Glu Lys Glu Leu
 340 345 350
 Ser Ser Ser Leu His Gln Lys Leu Cys Ser Phe Gln Glu Glu Met Val
 355 360 365
 Lys Glu Lys Asn Leu Phe Glu Glu Glu Leu Lys Gln Thr Leu Asp Glu
 370 375 380
 Leu Asp Lys Leu Gln Gln Lys Glu Glu Gln Ala Glu Arg Leu Val Lys
 385 390 395 400
 Gln Leu Glu Glu Glu Ala Lys Ser Arg Ala Glu Glu Leu Lys Leu Leu
 405 410 415
 Glu Glu Lys Leu Lys Gly Lys Glu Ala Glu Leu Glu Lys Ser Ser Ala
 420 425 430
 Ala His Thr Gln Ala Thr Leu Leu Leu Gln Glu Lys Tyr Asp Ser Met
 435 440 445
 Val Gln Ser Leu Glu Asp Val Thr Ala Gln Phe Glu Ser Tyr Lys Ala

450 455 460
 Leu Thr Ala Ser Glu Ile Glu Asp Leu Lys Leu Glu Asn Ser Ser Leu
 465 470 475 480
 Gln Glu Lys Ala Ala Lys Ala Gly Lys Asn Ala Glu Asp Val Gln His
 485 490 495
 Gln Ile Leu Ala Thr Glu Ser Ser Asn Gln Glu Tyr Val Arg Met Leu
 500 505 510
 Leu Asp Leu Gln Thr Lys Ser Ala Leu Lys Glu Thr Glu Ile Lys Glu
 515 520 525
 Ile Thr Val Ser Phe Leu Gln Lys Ile Thr Asp Leu Gln Asn Gln Leu
 530 535 540
 Lys Gln Gln Glu Glu Asp Phe Arg Lys Gln Leu Glu Asp Glu Glu Gly
 545 550 555 560
 Arg Lys Ala Glu Lys Glu Asn Thr Thr Ala Glu Leu Thr Glu Glu Ile
 565 570 575
 Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Asn Lys Thr Lys Pro
 580 585 590
 Phe Gln Leu Gln Leu Asp Ala Phe Glu Val Glu Lys Gln Ala Leu Leu
 595 600 605
 Asn Glu His Gly Ala Ala Gln Glu Gln Leu Asn Lys Ile Arg Asp Ser
 610 615 620
 Tyr Ala Lys Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys His
 625 630 635 640
 Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val Ser
 645 650 655
 Lys Leu Arg Cys Gln Leu Ala Lys Lys Lys Gln Ser Glu Thr Lys Leu
 660 665 670
 Gln Glu Glu Leu Asn Lys Val Leu Gly Ile Lys His Phe Asp Pro Ser
 675 680 685
 Lys Ala Phe His His Glu Ser Lys Glu Asn Phe Ala Leu Lys Thr Pro
 690 695 700
 Leu Lys Glu Gly Asn Thr Asn Cys Tyr Arg Ala Pro Met Glu Cys Gln
 705 710 715 720
 Glu Ser Trp Lys

<210> 81
 <211> 713
 <212> PRT

<213> Rattus norvegicus

<400> 81

Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
 1 5 10 15
 Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Ser Glu Ser Thr
 20 25 30
 Lys Gly Pro Val Ser Phe Gln Lys Ser Gln Arg Phe Lys Asn Gln Arg
 35 40 45
 Glu Ser Gln Gln Asn Leu Asn Ile Asp Lys Asp Thr Thr Leu Leu Ala
 50 55 60
 Ser Ala Lys Lys Ala Lys Thr Leu Val Ser Lys Lys Glu Ser Gln Lys
 65 70 75 80
 Asn Asp Lys Asp Val Lys Arg Leu Glu Lys Glu Ile His Val Leu Leu
 85 90 95
 Gln Glu Arg Gly Thr Gln Asp Lys Arg Ile Gln Asp Met Glu Ser Glu
 100 105 110
 Leu Glu Asn Thr Glu Ala Asn Leu Asn Ala Pro Val Thr Glu Lys Pro
 115 120 125
 Ser Leu Ser Ala Asn Asn Ala Ser Leu Glu Lys Arg Leu Thr Glu Leu
 130 135 140
 Thr Arg Ala Asn Glu Leu Leu Lys Ser Lys Phe Ser Glu Asp Ala His
 145 150 155 160
 Gln Lys Asn Met Arg Thr Leu Ser Leu Glu Leu Met Lys Leu Arg Asn
 165 170 175
 Lys Arg Glu Thr Lys Met Arg Ser Met Met Ala Lys Gln Glu Gly Met
 180 185 190
 Glu Leu Lys Leu Gln Ala Thr Gln Lys Asp Leu Ile Glu Ser Lys Gly
 195 200 205
 Lys Ile Val Gln Leu Glu Gly Lys Leu Val Ser Ile Glu Lys Glu Lys
 210 215 220
 Ile Asp Glu Lys Ser Glu Thr Glu Lys Leu Leu Glu Tyr Ile Glu Glu
 225 230 235 240
 Ile Ser Cys Ala Ser Asp Gln Val Glu Lys Tyr Lys Leu Asp Ile Ala
 245 250 255
 Gln Leu Glu Glu Asp Leu Lys Glu Lys Asp Arg Glu Ile Leu Cys Leu
 260 265 270
 Lys Gln Ser Leu Glu Glu Lys Val Ser Phe Ser Lys Gln Ile Glu Asp
 275 280 285

Leu Thr Val Lys Cys Gln Leu Leu Glu Ala Glu Arg Asp Asp Leu Val
 290 295 300
 Ser Lys Asp Arg Glu Arg Ala Glu Ser Leu Ser Ala Glu Met Gln Val
 305 310 315 320
 Leu Thr Glu Lys Leu Leu Leu Glu Arg Gln Glu Tyr Glu Lys Leu Gln
 325 330 335
 Gln Asn Glu Leu Gln Ser Gln Ser Leu Leu Gln Gln Glu Lys Glu Leu
 340 345 350
 Ser Ala His Leu Gln Gln Gln Leu Cys Ser Phe Gln Glu Glu Met Thr
 355 360 365
 Ser Glu Arg Asn Val Phe Lys Glu Gln Leu Lys Leu Ala Leu Asp Glu
 370 375 380
 Leu Asp Ala Val Gln Gln Lys Lys Glu Gln Ser Glu Lys Leu Val Lys
 385 390 395 400
 Gln Leu Glu Glu Glu Thr Lys Ser Thr Ala Glu Gln Leu Arg Arg Leu
 405 410 415
 Asp Asp Leu Leu Arg Glu Lys Glu Ile Glu Leu Glu Lys Arg Thr Ala
 420 425 430
 Ala His Ala Gln Ala Thr Val Ile Ala Gln Glu Lys Tyr Ser Asp Thr
 435 440 445
 Ala Gln Thr Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Tyr Lys Ser
 450 455 460
 Ser Thr Leu Lys Glu Ile Glu Asp Leu Lys Leu Glu Asn Leu Thr Leu
 465 470 475 480
 Gln Glu Lys Val Ala Met Ala Glu Lys Arg Val Glu Asp Val Gln Gln
 485 490 495
 Gln Ile Leu Thr Ala Glu Ser Thr Asn Gln Glu Tyr Ala Lys Val Val
 500 505 510
 Gln Asp Leu Gln Asn Ser Ser Thr Leu Lys Glu Ala Glu Ile Lys Glu
 515 520 525
 Ile Thr Ser Ser Tyr Leu Glu Lys Ile Thr Asp Leu Gln Asn Gln Leu
 530 535 540
 Arg Gln Gln Asn Glu Asp Phe Arg Lys Gln Leu Glu Glu Glu Gly Ala
 545 550 555 560
 Lys Met Thr Glu Lys Glu Thr Ala Val Thr Glu Leu Thr Met Glu Ile
 565 570 575
 Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Phe Asp Lys Thr Lys Pro
 580 585 590

Phe Gln Gln Gln Leu Asp Ala Phe Glu Ala Glu Lys Gln Ala Leu Leu
595 600 605

Asn Glu His Gly Ala Thr Gln Glu Gln Leu Ser Lys Ile Arg Asp Ser
610 615 620

Tyr Ala Gln Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys His
625 630 635 640

Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val Ser
645 650 655

Lys Leu Arg Ser Gln Leu Ala Lys Arg Lys Gln Asn Glu Leu Arg Leu
660 665 670

Gln Gly Glu Leu Asp Lys Ala Leu Gly Ile Arg His Phe Asp Pro Ser
675 680 685

Lys Ala Phe Cys His Glu Ser Lys Glu Asn Val Thr Leu Lys Thr Pro
690 695 700

Leu Lys Glu Gly Asn Pro Asn Cys Cys
705 710

<210> 82

<211> 405

<212> PRT

<213> Homo sapiens

<400> 82

Met Asp Ser Leu Val Thr Ala Asn Thr Lys Phe Cys Phe Asp Leu Phe
1 5 10 15

Gln Glu Ile Gly Lys Asp Asp Arg His Lys Asn Ile Phe Phe Ser Pro
20 25 30

Leu Ser Leu Ser Ala Ala Leu Gly Met Val Arg Leu Gly Ala Arg Ser
35 40 45

Asp Ser Ala His Gln Ile Asp Glu Val Leu His Phe Asn Glu Phe Ser
50 55 60

Gln Asn Glu Ser Lys Glu Pro Asp Pro Cys Leu Lys Ser Asn Lys Gln
65 70 75 80

Lys Ala Gly Ser Leu Asn Asn Glu Ser Gly Leu Val Ser Cys Tyr Phe
85 90 95

Gly Gln Leu Leu Ser Lys Leu Asp Arg Ile Lys Thr Asp Tyr Thr Leu
100 105 110

Ser Ile Ala Asn Arg Leu Tyr Gly Glu Gln Glu Phe Pro Ile Cys Gln
115 120 125

Glu Tyr Leu Asp Gly Val Ile Gln Phe Tyr His Thr Thr Ile Glu Ser
130 135 140

Val Asp Phe Gln Lys Asn Pro Glu Lys Ser Arg Gln Glu Ile Asn Phe
 145 150 155 160
 Trp Val Glu Cys Gln Ser Gln Gly Lys Ile Lys Glu Leu Phe Ser Lys
 165 170 175
 Asp Ala Ile Asn Ala Glu Thr Val Leu Val Leu Val Asn Ala Val Tyr
 180 185 190
 Phe Lys Ala Lys Trp Glu Thr Tyr Phe Asp His Glu Asn Thr Val Asp
 195 200 205
 Ala Pro Phe Cys Leu Asn Ala Asn Glu Asn Lys Ser Val Lys Met Met
 210 215 220
 Thr Gln Lys Gly Leu Tyr Arg Ile Gly Phe Ile Glu Glu Val Lys Ala
 225 230 235 240
 Gln Ile Leu Glu Met Arg Tyr Thr Lys Gly Lys Leu Ser Met Phe Val
 245 250 255
 Leu Leu Pro Ser His Ser Lys Asp Asn Leu Lys Gly Leu Glu Glu Leu
 260 265 270
 Glu Arg Lys Ile Thr Tyr Glu Lys Met Val Ala Trp Ser Ser Ser Glu
 275 280 285
 Asn Met Ser Glu Glu Ser Val Val Leu Ser Phe Pro Arg Phe Thr Leu
 290 295 300
 Glu Asp Ser Tyr Asp Leu Asn Ser Ile Leu Gln Asp Met Gly Ile Thr
 305 310 315 320
 Asp Ile Phe Asp Glu Thr Arg Ala Asp Leu Thr Gly Ile Ser Pro Ser
 325 330 335
 Pro Asn Leu Tyr Leu Ser Lys Ile Ile His Lys Thr Phe Val Glu Val
 340 345 350
 Asp Glu Asn Gly Thr Gln Ala Ala Ala Thr Gly Ala Val Val Ser
 355 360 365
 Glu Arg Ser Leu Arg Ser Trp Val Glu Phe Asn Ala Asn His Pro Phe
 370 375 380
 Leu Phe Phe Ile Arg His Asn Lys Thr Gln Thr Ile Leu Phe Tyr Gly
 385 390 395 400
 Arg Val Cys Ser Pro
 405

<210> 83
 <211> 423
 <212> PRT
 <213> Mus musculus

<400> 83

Met Asp Ser Leu Thr Ala Ala Asn Asn Lys Phe Cys Phe Asp Phe Phe
 1 5 10 15

Arg Glu Ile Ser Lys Asp Asp Ala His Lys Asn Ile Phe Val Cys Pro
 20 25 30

Leu Ser Leu Ser Ala Ala Phe Gly Met Val Arg Leu Gly Ala Arg Gly
 35 40 45

Asp Ser Ala His Gln Ile Asp Glu Ala Leu His Phe Asn Glu Leu Ser
 50 55 60

Lys Asp Glu His Lys Glu Pro Asn Asp Pro Ser Pro Gln Ser Glu Ser
 65 70 75 80

Lys Ala Ser Asp Ser Ser Leu Glu Gly Gln Lys Gln Thr Ser Ala Ser
 85 90 95

Gln Asp Gln Gln Gly Glu Ser Thr Asn Asp His Gln Leu Leu Gly Cys
 100 105 110

His Phe Gly Lys Leu Leu Ser Arg Ile Asp Arg Asp Lys Ser Tyr Tyr
 115 120 125

Thr Leu Ser Met Ala Asn Arg Leu Tyr Gly Glu Gln Glu Phe Pro Ile
 130 135 140

Cys Ser Glu Tyr Ser Asp Asp Val Thr Glu Phe Phe His Thr Thr Val
 145 150 155 160

Glu Ser Val Asp Phe Gln Lys Asp Ser Glu Lys Ser Arg Gln Glu Ile
 165 170 175

Asn Phe Trp Val Glu Ser Gln Ser Gln Gly Lys Ile Lys Glu Leu Phe
 180 185 190

Gly Lys Glu Ala Ile Asp Asn Ser Thr Val Leu Val Leu Val Asn Ala
 195 200 205

Val Tyr Phe Lys Ala Lys Trp Glu Arg Glu Phe Asn Ser Glu Asn Thr
 210 215 220

Val Asp Ala Ser Phe Cys Leu Asn Glu Asn Glu Lys Lys Thr Val Lys
 225 230 235 240

Met Met Asn Gln Lys Gly Lys Phe Arg Ile Gly Phe Ile Asp Glu Leu
 245 250 255

Gln Ala Gln Ile Leu Glu Met Lys Tyr Ala Met Gly Lys Leu Ser Met
 260 265 270

Leu Val Leu Leu Pro Ser Cys Ser Glu Asp Asn Val Asn Ser Leu Gln
 275 280 285

Glu Leu Glu Lys Lys Ile Asn His Glu Lys Leu Leu Ala Trp Ser Ser

290 295 300
 Ser Glu Asn Leu Ser Glu Lys Pro Val Ala Ile Ser Phe Pro Gln Phe
 305 310 315 320
 Asn Leu Glu Asp Ser Tyr Asp Leu Lys Ser Ile Leu Gln Asp Met Gly
 325 330 335
 Ile Lys Asp Val Phe Asp Glu Thr Lys Ala Asp Leu Thr Gly Ile Ser
 340 345 350
 Lys Ser Pro Asn Leu Tyr Leu Ser Lys Ile Val His Lys Thr Phe Val
 355 360 365
 Glu Val Asp Glu Met Gly Thr Gln Ala Ala Ala Ala Ser Gly Val Val
 370 375 380
 Ala Ala Glu Lys Ala Leu Pro Ser Trp Val Glu Phe Asn Ala Asn His
 385 390 395 400
 Pro Phe Leu Phe Phe Ile Arg His Asn Pro Thr Gln Ser Leu Leu Phe
 405 410 415
 Cys Gly Arg Val Tyr Cys Pro
 420

<210> 84
 <211> 378
 <212> PRT
 <213> Bos taurus

<400> 84
 Met Asp Ala Leu Ser Glu Ala Asn Gly Thr Phe Ala Leu Thr Leu Leu
 1 5 10 15
 Lys Lys Leu Gly Glu Gly Asn Ser Lys Asn Val Phe Ile Ser Pro Leu
 20 25 30
 Ser Ile Ser Ser Ala Leu Ala Met Val Leu Leu Gly Ala Lys Gly Asn
 35 40 45
 Thr Ala Ala Gln Met Cys Gln Thr Leu Ser Leu Asn Lys Ser Ser Gly
 50 55 60
 Gly Gly Glu Asp Val His Gln Gly Phe Gln Asn Leu Leu Ser Glu Val
 65 70 75 80
 Asn Arg Arg Asp Thr Gln Tyr Leu Leu Arg Thr Ala Asn Arg Leu Phe
 85 90 95
 Gly Glu Lys Thr Tyr Asp Phe Leu Ser Ser Phe Lys Asp Ser Cys His
 100 105 110
 Lys Phe Tyr Gln Ala Glu Met Glu Glu Leu Asp Phe Val Ser Ala Thr
 115 120 125

Glu Gln Ser Arg Lys His Ile Asn Thr Trp Val Ala Glu Lys Thr Glu
 130 135 140
 Gly Lys Ile Arg Asp Leu Leu Pro Ala Asn Ser Val Asn Pro Met Thr
 145 150 155 160
 Arg Leu Val Leu Val Asn Ala Ile Tyr Phe Lys Gly Asn Trp Asp Thr
 165 170 175
 Gln Phe Asn Lys Glu His Thr Glu Glu Arg Pro Phe Arg Val Ser Lys
 180 185 190
 Asn Val Glu Lys Pro Val Gln Met Met Phe Lys Lys Ser Thr Cys Lys
 195 200 205
 Ile Thr Tyr Ile Gly Glu Ile Ser Thr Gln Ile Leu Val Leu Pro Tyr
 210 215 220
 Val Gly Gln Glu Leu Asn Met Val Ile Leu Leu Pro Ser Glu Ser Thr
 225 230 235 240
 Asp Leu Asn Thr Val Glu Lys Ala Leu Thr Tyr Glu Lys Phe Ile Ala
 245 250 255
 Trp Thr Lys Pro Asp Val Met Asp Glu Glu Glu Val Glu Val Phe Leu
 260 265 270
 Pro Arg Phe Thr Leu Glu Glu Ser Tyr Asp Met Glu Glu Phe Leu Gln
 275 280 285
 Glu Leu Gly Met Thr Asp Ala Phe Glu Glu Thr Arg Ala Asp Phe Ser
 290 295 300
 Gly Met Ser Ser Gly Arg Gly Leu His Leu Ser Lys Val Met His Lys
 305 310 315 320
 Ser Phe Val Glu Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr
 325 330 335
 Gly Ala Val Val Met Met Arg Cys Leu Met Val Val Pro Arg Phe Asn
 340 345 350
 Ala Asn His Pro Phe Leu Phe Phe Ile Gln His Ser Lys Thr Gly Ala
 355 360 365
 Ile Leu Phe Cys Gly Arg Phe Cys Ser Pro
 370 375

<210> 85
 <211> 379
 <212> PRT
 <213> Mus musculus

<400> 85
 Met Glu Gln Leu Ser Ser Ala Asn Thr Leu Phe Ala Leu Glu Leu Phe
 1 5 10 15

Gln Thr Leu Asn Glu Ser Ser Pro Thr Gly Asn Ile Phe Phe Ser Pro
 20 25 30
 Phe Ser Ile Ser Ser Ala Leu Ala Met Val Ile Leu Gly Ala Lys Gly
 35 40 45
 Ser Thr Ala Ala Gln Leu Ser Lys Thr Phe His Phe Asp Ser Val Glu
 50 55 60
 Asp Ile His Ser Arg Phe Gln Ser Leu Asn Ala Glu Val Ser Lys Arg
 65 70 75 80
 Gly Ala Ser His Thr Leu Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys
 85 90 95
 Thr Tyr Asn Phe Leu Pro Glu Tyr Leu Ala Ser Thr Gln Lys Met Tyr
 100 105 110
 Gly Ala Asp Leu Ala Pro Val Asp Phe Leu His Ala Ser Glu Asp Ala
 115 120 125
 Arg Lys Glu Ile Asn Gln Trp Val Lys Gly Gln Thr Glu Gly Lys Ile
 130 135 140
 Pro Glu Leu Leu Ser Val Gly Val Val Asp Ser Met Thr Lys Leu Val
 145 150 155 160
 Leu Val Asn Ala Ile Tyr Phe Lys Gly Met Trp Glu Glu Lys Phe Met
 165 170 175
 Thr Glu Asp Thr Thr Asp Ala Pro Phe Arg Leu Ser Lys Lys Asp Thr
 180 185 190
 Lys Thr Val Lys Met Met Tyr Gln Lys Lys Lys Phe Pro Phe Gly Tyr
 195 200 205
 Ile Ser Asp Leu Lys Cys Lys Val Leu Glu Met Pro Tyr Gln Gly Gly
 210 215 220
 Glu Leu Ser Met Val Ile Leu Leu Pro Lys Asp Ile Glu Asp Glu Ser
 225 230 235 240
 Thr Gly Leu Lys Lys Ile Glu Lys Gln Ile Thr Leu Glu Lys Leu Leu
 245 250 255
 Glu Trp Thr Lys Arg Glu Asn Leu Glu Phe Ile Asp Val His Val Lys
 260 265 270
 Leu Pro Arg Phe Lys Ile Glu Glu Ser Tyr Thr Leu Asn Ser Asn Leu
 275 280 285
 Gly Arg Leu Gly Val Gln Asp Leu Phe Ser Ser Ser Lys Ala Asp Leu
 290 300
 Ser Gly Met Ser Gly Ser Arg Asp Leu Phe Ile Ser Lys Ile Val His
 305 310 315 320

Lys Ser Phe Val Glu Val Asn Glu Gly Thr Glu Ala Ala Ala Ala
 325 330 335

Thr Gly Gly Ile Ala Thr Phe Cys Met Leu Leu Pro Glu Glu Glu Phe
 340 345 350

Thr Val Asp His Pro Phe Ile Phe Phe Ile Arg His Asn Pro Thr Ser
 355 360 365

Asn Val Leu Phe Leu Gly Arg Val Cys Ser Pro
 370 375

<210> 86

<211> 379

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> (204)

<223> Wherein Xaa is any amino acid as defined in the
 specification.

<400> 86

Met Glu Gln Leu Ser Ser Ala Asn Thr Leu Phe Ala Leu Glu Leu Phe
 1 5 10 15

Gln Thr Leu Asn Glu Ser Ser Pro Thr Gly Asn Ile Phe Phe Ser Pro
 20 25 30

Phe Ser Ile Ser Ser Ala Leu Ala Met Val Ile Leu Gly Ala Lys Gly
 35 40 45

Ser Thr Ala Ala Gln Leu Ser Lys Thr Phe His Phe Asp Ser Val Glu
 50 55 60

Asp Ile His Ser Arg Phe Gln Ser Gln Asn Ala Glu Val Ser Lys Arg
 65 70 75 80

Gly Ala Ser His Thr Leu Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys
 85 90 95

Thr Tyr Asn Phe Leu Pro Glu Tyr Leu Ala Ser Thr Gln Lys Met Tyr
 100 105 110

Gly Ala Asp Leu Ala Pro Val Asp Phe Leu His Ala Ser Glu Asp Ala
 115 120 125

Arg Lys Glu Ile Asn Gln Trp Val Lys Gly Gln Thr Glu Gly Lys Ile
 130 135 140

Pro Glu Leu Leu Ser Val Gly Val Val Asp Ser Met Thr Lys Leu Val
 145 150 155 160

Leu Val Asn Ala Ile Tyr Phe Lys Gly Met Trp Glu Glu Lys Phe Met

Ala Thr Gln Ile Leu Glu Val Leu Gly Phe Asn Leu Thr Glu Thr Ser
 50 55 60
 Glu Ala Glu Ile His Gln Gly Phe Gln His Leu Leu Gln Glu Leu Asn
 65 70 75 80
 Arg Pro Asp Thr Gly Leu Gln Leu Thr Thr Gly Asn Ala Leu Phe Val
 85 90 95
 Asp Lys Ser Leu Lys Leu Leu Asp Glu Phe Leu Glu Asp Ser Lys Arg
 100 105 110
 Leu Tyr Gln Ser Glu Val Phe Ser Val Asp Phe Ser Asp Pro Glu Glu
 115 120 125
 Ala Lys Lys Gln Ile Asn Asp Trp Val Glu Lys Lys Thr Gln Gly Lys
 130 135 140
 Ile Lys Asp Leu Leu Lys Asp Leu Asp Ser Asp Thr Val Leu Val Leu
 145 150 155 160
 Val Asn Tyr Ile Tyr Phe Lys Gly Lys Trp Lys Lys Pro Phe Asp Pro
 165 170 175
 Glu Leu Thr Glu Glu Glu Asp Phe His Val Asp Lys Lys Thr Thr Val
 180 185 190
 Lys Val Pro Met Met Asn Gln Leu Gly Thr Phe Tyr Tyr Phe Arg Asp
 195 200 205
 Glu Glu Leu Asn Cys Lys Val Leu Glu Leu Pro Tyr Lys Gly Asn Ala
 210 215 220
 Thr Ser Met Leu Phe Ile Leu Pro Asp Glu Val Gly Lys Leu Glu Gln
 225 230 235 240
 Val Glu Ala Ala Leu Ser Pro Glu Thr Leu Arg Lys Trp Leu Glu Asn
 245 250 255
 Met Glu Pro Arg Glu Val Glu Leu Tyr Leu Pro Lys Phe Ser Ile Glu
 260 265 270
 Gly Thr Tyr Asp Leu Lys Asp Val Leu Ala Lys Leu Gly Ile Thr Asp
 275 280 285
 Leu Phe Ser Asn Gln Ala Asp Leu Ser Gly Ile Ser Glu Asp Glu Asp
 290 295 300
 Leu Lys Val Ser Lys Ala Val His Lys Ala Val Leu Glu Val Asp Glu
 305 310 315 320
 Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ala Ile Ile Val Pro Arg
 325 330 335
 Ser Leu Pro Pro Glu Leu Glu Phe Thr Ala Asp Arg Pro Phe Leu Phe
 340 345 350

Leu Ile Tyr Asp Asp Pro Thr Gly Ser Ile Leu Phe Met Gly Lys Val
 355 360 365

Val Asn Pro
 370

<210> 88
 <211> 360
 <212> PRT
 <213> Homo sapiens

<400> 88
 Phe Asp Leu Tyr Lys Glu Leu Ala Lys Glu Ser Pro Asp Lys Asn Ile
 1 5 10 15

Phe Phe Ser Pro Val Ser Ile Ser Ser Ala Leu Ala Met Leu Ser Leu
 20 25 30

Gly Ala Lys Gly Ser Thr Ala Thr Gln Ile Leu Glu Val Leu Gly Phe
 35 40 45

Asn Leu Thr Glu Thr Ser Glu Ala Asp Ile His Gln Gly Phe Gln His
 50 55 60

Leu Leu His Leu Leu Asn Arg Pro Asp Asn Lys Leu Gln Leu Lys Thr
 65 70 75 80

Ala Asn Ala Leu Phe Val Asp Lys Ser Leu Lys Leu Leu Asp Ser Phe
 85 90 95

Leu Glu Asp Val Lys Lys Leu Tyr Gly Ala Glu Val Gln Ser Val Asp
 100 105 110

Phe Ser Asp Pro Ala Glu Glu Ala Lys Lys Gln Ile Asn Asp Trp Val
 115 120 125

Lys Lys Lys Thr Gln Gly Lys Ile Lys Asp Leu Leu Ser Asp Leu Asp
 130 135 140

Pro Asp Thr Arg Leu Val Leu Val Asn Ala Ile Tyr Phe Lys Gly Lys
 145 150 155 160

Trp Lys Thr Pro Phe Asp Pro Glu Asn Thr Arg Glu Glu Asp Phe Tyr
 165 170 175

Val Asp Glu Thr Thr Thr Val Lys Val Pro Met Met Ser Gln Thr Gly
 180 185 190

Arg Thr Phe Arg Tyr Gly Arg Asp Glu Glu Leu Asn Cys Gln Val Leu
 195 200 205

Glu Leu Pro Tyr Lys Gly Asn Ala Ser Met Leu Ile Ile Leu Pro Asp
 210 215 220

Glu Gly Gly Leu Glu Thr Val Glu Lys Ala Leu Thr Pro Glu Thr Leu
 225 230 235 240

Lys Lys Trp Thr Lys Ser Leu Thr Lys Arg Ser Val Glu Leu Tyr Leu
245 250 255

Pro Lys Phe Lys Leu Glu Ile Ser Tyr Asp Leu Lys Asp Val Leu Glu
260 265 270

Lys Leu Gly Ile Thr Asp Leu Phe Ser Asn Lys Ala Asp Leu Ser Gly
275 280 285

Ile Ser Glu Asp Lys Asp Leu Lys Val Ser Lys Val Val His Lys Ala
290 295 300

Phe Leu Glu Val Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly
305 310 315 320

Val Ile Ile Val Pro Arg Ser Leu Pro Pro Pro Glu Phe Lys Ala Asn
325 330 335

Arg Pro Phe Leu Phe Leu Ile Arg Asp Asn Pro Thr Gly Ser Ile Leu
340 345 350

Phe Met Gly Lys Val Val Asn Pro
355 360

<210> 89

<211> 467

<212> PRT

<213> Homo sapiens

<400> 89

Met Arg Thr Ala Pro Ser Leu Arg Arg Cys Val Cys Leu Leu Leu Ala
1 5 10 15

Ala Ile Leu Asp Leu Ala Arg Gly Tyr Leu Thr Val Asn Ile Glu Pro
20 25 30

Leu Pro Pro Val Val Ala Gly Asp Ala Val Thr Leu Lys Cys Asn Phe
35 40 45

Lys Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp
50 55 60

Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser
65 70 75 80

Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val
85 90 95

Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly
100 105 110

Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys
115 120 125

Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Ala Pro Pro

130 135 140
 Thr Ser Ile Glu Val Val Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg
 145 150 155 160
 Tyr Gln Ala Gln Asn Phe Thr Leu Val Cys Ile Val Ser Gly Gly Lys
 165 170 175
 Pro Ala Pro Met Val Tyr Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala
 180 185 190
 Val Pro Leu Ser Glu Pro Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp
 195 200 205
 Ser Arg Pro Phe Arg Ser Leu Leu His Arg Asp Leu Asp Asp Thr Lys
 210 215 220
 Met Gln Lys Ser Leu Ser Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg
 225 230 235 240
 Pro Tyr Thr Glu Arg Pro Ser Arg Gly Leu Thr Pro Asp Pro Asn Ile
 245 250 255
 Leu Leu Gln Pro Thr Thr Glu Asn Ile Pro Glu Thr Val Val Ser Arg
 260 265 270
 Glu Phe Pro Arg Trp Val His Ser Ala Glu Pro Thr Tyr Phe Leu Arg
 275 280 285
 His Ser Arg Thr Pro Ser Ser Asp Gly Thr Val Glu Val Arg Ala Leu
 290 295 300
 Leu Thr Trp Thr Leu Asn Pro Gln Ile Asp Asn Glu Ala Leu Phe Ser
 305 310 315 320
 Cys Glu Val Lys His Pro Ala Leu Ser Met Pro Met Gln Ala Glu Val
 325 330 335
 Thr Leu Val Ala Pro Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg
 340 345 350
 Ala Arg Val Gly Asp Thr Val Arg Ile Leu Val His Gly Phe Gln Asn
 355 360 365
 Glu Val Phe Pro Glu Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg
 370 375 380
 Leu Leu Asp Gly Ser Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu
 385 390 395 400
 Arg Val Pro Ala Glu Leu Asn Gly Ser Met Tyr Arg Cys Thr Ala Gln
 405 410 415
 Asn Pro Leu Gly Ser Thr Asp Thr His Thr Arg Leu Ile Val Phe Glu
 420 425 430
 Asn Pro Asn Ile Pro Arg Gly Thr Glu Asp Ser Asn Gly Ser Ile Gly

435 440 445
 Pro Thr Gly Ala Arg Leu Thr Leu Val Leu Ala Leu Thr Val Ile Leu
 450 455 460

 Glu Leu Thr
 465

 <210> 90
 <211> 404
 <212> PRT
 <213> Macaca fascicularis

 <400> 90
 Met Arg Ala Ala Pro Ser Leu Arg Arg Cys Val Cys Leu Leu Leu Ala
 1 5 10 15

 Ala Ile Leu Asp Leu Ala Cys Gly Tyr Leu Thr Val Asn Ile Glu Pro
 20 25 30

 Leu Pro Pro Val Val Ala Gly Asp Ala Val Thr Leu Lys Cys Asn Phe
 35 40 45

 Lys Thr Asp Gly Arg Met Arg Glu Ile Val Trp Tyr Arg Val Thr Asp
 50 55 60

 Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala Met Phe Ser
 65 70 75 80

 Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu Asp Leu Val
 85 90 95

 Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser Asp Asn Gly
 100 105 110

 Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr Arg Glu Lys
 115 120 125

 Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met Ala Pro Pro
 130 135 140

 Thr Ser Ile Glu Val Val Ala Ala Asp Thr Pro Ala Pro Phe Ser Arg
 145 150 155 160

 Tyr Gln Ala Gln Asn Phe Thr Leu Val Cys Ile Val Ser Gly Gly Lys
 165 170 175

 Pro Ala Pro Met Val Tyr Phe Lys Arg Asp Gly Glu Pro Ile Asp Ala
 180 185 190

 Val Pro Leu Ser Glu Pro Pro Ala Ala Ser Ser Gly Pro Leu Gln Asp
 195 200 205

 Ser Arg Pro Phe Arg Ser Leu Leu His Arg Asp Leu Asp Asp Thr Lys
 210 215 220

Met Gln Lys Ser Leu Ser Leu Leu Asp Ala Glu Asn Arg Gly Gly Arg
 225 230 235 240
 Pro Tyr Thr Glu Arg Pro Ser His Gly Leu Thr Pro Asp Pro Asn Ile
 245 250 255
 Leu Leu Gln Pro Thr Thr Glu Asn Ile Pro Glu Thr Val Val Ser Arg
 260 265 270
 Glu Phe Pro Arg Trp Val His Ser Ala Glu Pro Thr Tyr Phe Leu Arg
 275 280 285
 His Ser Arg Thr Pro Ser Ser Asp Gly Thr Val Glu Val Arg Ala Leu
 290 295 300
 Leu Thr Trp Thr Leu Asn Pro Gln Ile Asp Asn Glu Ala Leu Phe Ser
 305 310 315 320
 Cys Glu Val Lys His Pro Ala Leu Ser Met Pro Met Gln Ala Glu Val
 325 330 335
 Thr Leu Val Ala Pro Lys Gly Pro Lys Ile Val Met Thr Pro Ser Arg
 340 345 350
 Ala Arg Val Gly Asp Thr Val Arg Ile Leu Val His Gly Phe Gln Asn
 355 360 365
 Glu Val Phe Pro Glu Pro Met Phe Thr Trp Thr Arg Val Gly Ser Arg
 370 375 380
 Leu Leu Asp Gly Ser Ala Glu Phe Asp Gly Lys Glu Leu Val Leu Glu
 385 390 395 400
 Arg Val Pro Ala

<210> 91
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 91
 Val Thr Asp Gly Gly Thr Ile Lys Gln Lys Ile Phe Thr Phe Asp Ala
 1 5 10 15
 Met Phe Ser Thr Asn Tyr Ser His Met Glu Asn Tyr Arg Lys Arg Glu
 20 25 30
 Asp Leu Val Tyr Gln Ser Thr Val Arg Leu Pro Glu Val Arg Ile Ser
 35 40 45
 Asp Asn Gly Pro Tyr Glu Cys His Val Gly Ile Tyr Asp Arg Ala Thr
 50 55 60
 Arg Glu Lys Val Val Leu Ala Ser Gly Asn Ile Phe Leu Asn Val Met
 65 70 75 80

<210> 92
 <211> 4162
 <212> PRT
 <213> Gallus gallus

<400> 92
 Met Thr Thr Lys Ala Pro Thr Phe Thr Gln Pro Leu Gln Ser Val Val
 1 5 10 15
 Ala Leu Glu Gly Ser Ala Ala Thr Phe Glu Ala His Ile Ser Gly Phe
 20 25 30
 Pro Val Pro Glu Val Ser Trp Tyr Arg Asp Gly Gln Val Leu Ser Ala
 35 40 45
 Ala Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys
 50 55 60
 Leu Val Ile Pro Ser Val Thr Glu Ala Asn Ser Gly Arg Tyr Thr Ile
 65 70 75 80
 Gln Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
 85 90 95
 Val Thr Ala Gly Thr Ala Pro Pro Asn Phe Ser Gln Arg Leu Gln Ser
 100 105 110
 Met Thr Ala Arg Gln Gly Ser Gln Val Arg Leu Asp Val Arg Val Thr
 115 120 125
 Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Val Glu Ile
 130 135 140
 Gln Ser Ser Pro Asp Phe Gln Ile Leu Gln Glu Gly Asp Leu Tyr Ser
 145 150 155 160
 Leu Ile Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val
 165 170 175
 Asn Ala Thr Asn Asn Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu
 180 185 190
 Ile Gln Gly Glu Glu Glu Ala Val Pro Ala Lys Lys Thr Lys Thr Ile
 195 200 205
 Val Ser Thr Ala Gln Ile Ser Gln Thr Arg Gln Ala Arg Ile Glu Lys
 210 215 220
 Lys Ile Glu Thr His Phe Asp Ala Arg Ser Leu Thr Ser Val Glu Met
 225 230 235 240
 Val Ile Glu Gly Ala Ala Ala Gln Gln Leu Pro His Lys Ala Pro Pro

245

250

255

Arg	Met	Pro	Pro	Arg	Pro	Thr	Ser	Lys	Ser	Pro	Thr	Pro	Pro	Val	Ile
			260					265						270	
Thr	Ala	Lys	Ala	Gln	Met	Ala	Arg	Gln	Gln	Ser	Pro	Ser	Pro	Val	Arg
		275					280					285			
Gln	Ser	Pro	Ser	Pro	Val	Arg	His	Val	Arg	Ala	Pro	Thr	Pro	Ser	Pro
		290				295					300				
Val	Arg	Ser	Val	Ser	Pro	Ala	Gly	Arg	Ile	Ser	Thr	Ser	Pro	Ile	Arg
305					310					315					320
Pro	Val	Lys	Ser	Pro	Ser	Pro	Ile	Arg	Lys	Ala	Gln	Val	Val	Thr	Pro
				325					330					335	
Gly	Ala	Glu	Val	Leu	Pro	Pro	Trp	Arg	Gln	Glu	Gly	Tyr	Ser	Ala	Thr
			340					345					350		
Ala	Glu	Ala	Gln	Met	Lys	Glu	Thr	Arg	Val	Ser	Thr	Ser	Ala	Thr	Glu
			355				360					365			
Ile	Arg	Thr	Glu	Glu	Arg	Trp	Glu	Gly	Arg	Tyr	Gly	Leu	Gln	Glu	Gln
						375					380				
Val	Thr	Ile	Ser	Gly	Ala	Ala	Ala	Gly	Glu	Val	Ala	Ala	Gly	Ala	Lys
385					390					395					400
Glu	Val	Arg	Lys	Glu	Pro	Glu	Lys	Thr	Pro	Val	Pro	Thr	Val	Ile	Ile
				405					410					415	
Ala	Thr	Asp	Lys	Ala	Lys	Glu	Gln	Glu	Arg	Ile	Ser	Thr	Ala	Arg	Glu
			420					425					430		
Glu	Ile	Ser	Ala	Arg	His	Glu	Gln	Val	His	Val	Ser	His	Glu	Gln	Ile
			435				440					445			
Glu	Ala	Gly	Lys	Arg	Ala	Glu	Ala	Val	Ala	Thr	Val	Val	Ala	Ala	Val
						455					460				
Asp	Gln	Ala	Arg	Val	Arg	Ser	Pro	Trp	Glu	Thr	Glu	Gln	Val	Asp	Glu
465					470					475					480
Thr	Tyr	Val	Lys	Lys	Lys	Thr	Leu	Glu	Tyr	Gly	Tyr	Lys	Glu	His	Ala
				485					490					495	
Val	Lys	Asp	His	Glu	Ala	Gln	Ala	Glu	His	His	Val	Ala	Thr	Lys	Glu
			500					505					510		
Val	Lys	Thr	Val	Tyr	Val	Pro	Pro	Glu	Lys	His	Ile	Pro	Ala	Ala	Glu
						520						525			
Lys	Lys	Glu	Val	His	Val	Ser	Thr	Glu	Ile	Lys	Arg	Glu	Thr	Glu	Ala
						535					540				
Lys	Ile	Glu	Lys	Thr	Ile	His	Ile	Glu	His	Pro	Arg	Pro	Arg	Thr	Ala

545 550 555 560
 Ser Pro His Phe Thr Val Ser Lys Ile Ala Val Pro Lys Pro Asp His
 565 570 575
 Thr Tyr Glu Val Ser Ile Ala Gly Ser Ala Met Ala Thr Leu Glu Lys
 580 585 590
 Glu Leu Ser Ala Thr Ser Ala Ala Gln Lys Ile Thr Lys Pro Val Lys
 595 600 605
 Pro Pro Gln Leu Lys Pro His Glu Val Lys Ile Lys Pro Glu Ser Ala
 610 615 620
 Pro Pro Gln Phe Pro Phe Thr Glu Ala Ala Glu Thr Tyr Lys Ala His
 625 630 635 640
 Tyr Asp Val Glu Thr Lys Lys Glu Val Asp Val Ser Ile Lys Gly Glu
 645 650 655
 Ala Val Arg Glu Asp His Leu Leu Leu Arg Lys Glu Ser Glu Ala Lys
 660 665 670
 Val Thr Glu Thr Ala Arg Val Pro Val Pro Ala Glu Ile Pro Val Thr
 675 680 685
 Pro Pro Thr Leu Val Trp Gly Leu Lys Asn Lys Thr Val Thr Glu Gly
 690 695 700
 Glu Ser Val Thr Leu Glu Cys His Ile Ser Gly His Pro Gln Pro Thr
 705 710 715 720
 Val Thr Trp Tyr Arg Glu Asp Tyr Lys Ile Glu Ser Ser Met Asp Phe
 725 730 735
 Gln Ile Thr Phe Lys Ala Gly Leu Ala Arg Leu Val Ile Arg Glu Ala
 740 745 750
 Phe Ala Glu Asp Ser Gly Arg Phe Thr Cys Thr Ala Thr Asn Lys Ala
 755 760 765
 Gly Ser Val Ser Thr Ser Cys His Leu His Val Lys Val Ser Glu Glu
 770 775 780
 Thr Glu Thr Arg Glu Thr Ile Ser Glu Lys Val Val Thr Glu Glu Lys
 785 790 795 800
 Ser Tyr Val Glu Thr Lys Asp Val Val Met Glu Asp Val Ser Ala Ala
 805 810 815
 Ala Glu Glu Val Ser Gly Glu Pro Val Pro Pro Phe Phe Ile Arg Lys
 820 825 830
 Pro Val Val His Lys Leu Ile Glu Gly Gly Ser Ile Ile Phe Glu Cys
 835 840 845
 Gln Val Gly Gly Asn Pro Lys Pro His Val Leu Trp Lys Lys Gly Gly

850	855	860
Val Pro Leu Thr Thr Gly Tyr Arg Tyr Lys Val Ser Tyr Lys Arg Glu		
865	870	875 880
Thr Gly Glu Cys Lys Leu Glu Ile Ser Met Thr Phe Ala Asp Asp Ala		
	885	890 895
Gly Glu Tyr Thr Ile Val Ile Arg Asn Lys Phe Gly Glu Ala Ser Ala		
	900	905 910
Thr Val Ser Leu Leu Glu Glu Ala Asp Tyr Glu Ala Tyr Ile Lys Ser		
	915	920 925
Gln Gln Glu Met Met Tyr Gln Thr Gln Val Thr Ala Tyr Val Gln Glu		
	930	935 940
Pro Lys Val Ala Glu Val Ala Pro Pro Ile Ser Tyr Gly Asp Phe Asp		
	945	950 955 960
Lys Glu Tyr Glu Lys Glu Gln Ala Leu Ile Arg Lys Lys Met Ala Lys		
	965	970 975
Asp Thr Val Met Val Arg Thr Phe Val Glu Asp Glu Glu Phe His Ile		
	980	985 990
Ser Ser Phe Glu Glu Arg Leu Ile Lys Glu Ile Glu Leu Arg Ile Ile		
	995	1000 1005
Lys Thr Thr Leu Asp Glu Leu Leu Glu Glu Asp Gly Glu Glu Met Met		
	1010	1015 1020
Ile Asp Ile Ser Glu Ser Glu Ala Ile Gly Ala Gly Phe Asp Leu Arg		
	1025	1030 1035 1040
Leu Lys Asn Tyr Arg Thr Phe Glu Gly Thr Gly Val Thr Phe His Cys		
	1045	1050 1055
Lys Thr Thr Gly Tyr Pro Leu Pro Lys Ile Ala Trp Tyr Lys Asp Gly		
	1060	1065 1070
Lys Arg Ile Arg His Gly Glu Arg Tyr His Met Glu Val Leu Gln Asp		
	1075	1080 1085
Gly Ser Ala Ser Leu Arg Leu Pro Val Val Leu Pro Glu Asp Glu Gly		
	1090	1095 1100
Ile Tyr Thr Val Phe Ala Ser Asn Met Lys Gly Asn Ala Ile Cys Ser		
	1105	1110 1115 1120
Ala Lys Leu Tyr Val Glu Pro Val Ala Pro Thr Ala Thr Pro Gly Tyr		
	1125	1130 1135
Met Pro Gly Pro Glu Val Met Arg Arg Tyr Arg Ser Ile Ser Pro Arg		
	1140	1145 1150
Ser Pro Ser Arg Ser Pro Ala Arg Ser Ser Pro Ser Cys Ser Pro Ala		

1155	1160	1165
Arg Arg Leu Asp Glu Thr Asp Glu Gly Gln Leu Glu Arg Leu Tyr Lys		
1170	1175	1180
Pro Val Phe Val Leu Lys Pro Thr Ser Val Lys Cys Ser Gln Gly Gln		
1185	1190	1195 1200
Thr Ala Arg Phe Asp Leu Lys Val Val Gly Arg Pro Met Pro Glu Thr		
	1205	1210 1215
Tyr Trp Phe His Asn Gly Gln Gln Val Val Asn Asp Tyr Thr His Lys		
	1220	1225 1230
Ile Val Ile Lys Glu Asp Gly Thr Gln Ser Leu Ile Ile Val Pro Ala		
	1235	1240 1245
Met Pro Glu Asp Ser Gly Glu Trp Ala Val Ile Ala Gln Asn Arg Ala		
	1250	1255 1260
Gly Lys Ala Ser Val Ser Val Thr Leu Ser Val Glu Ala Lys Glu Asp		
	1265	1270 1275 1280
Leu Val Arg Pro Arg Phe Val Glu Arg Leu Arg Asn Val Ser Val Lys		
	1285	1290 1295
Glu Gly Ser Arg Leu His Met Ala Val Lys Ala Thr Gly Asn Pro Asn		
	1300	1305 1310
Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro His Lys		
	1315	1320 1325
Tyr Pro Arg Ile Arg Ile Glu Gly Thr Lys Gly Ala Ala Ala Leu Asn		
	1330	1335 1340
Ile Glu Ser Thr Ala Arg Gln Asp Ala Ala Trp Tyr Thr Ala Thr Ala		
	1345	1350 1355 1360
Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn Val Glu		
	1365	1370 1375
Val Glu His Ala Glu Pro Glu Pro Glu Arg Arg Leu Ile Ile Pro Lys		
	1380	1385 1390
Gly Thr Tyr Lys Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu Pro Leu		
	1395	1400 1405
His Leu Arg Tyr Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu Tyr Asp		
	1410	1415 1420
Lys Glu Lys Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr Ser Leu		
	1425	1430 1435 1440
Arg Leu Lys Gln Phe Gly Pro Ala His Phe Glu Cys Arg Leu Thr Pro		
	1445	1450 1455
Ile Gly Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly Lys Pro		

1460 1465 1470
 Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly Tyr Cys
 1475 1480 1485
 Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Val Ile Thr
 1490 1495 1500
 Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala Thr Leu
 1505 1510 1515 1520
 Ile Val Lys Asp Glu Lys Ser Leu Val Glu Glu Ser Gln Leu Pro Glu
 1525 1530 1535
 Gly Arg Arg Gly Met Gln Arg Ile Glu Glu Leu Glu Arg Met Ala His
 1540 1545 1550
 Glu Gly Ala Leu Pro Ala Val Ala Val Asp Gln Lys Glu Lys Gln Lys
 1555 1560 1565
 Pro Glu Leu Val Leu Val Pro Glu Pro Ala Arg Val Leu Glu Gly Glu
 1570 1575 1580
 Thr Ala Arg Phe Arg Cys Arg Val Thr Gly Tyr Pro Leu Pro Lys Val
 1585 1590 1595 1600
 Asn Trp Tyr Leu Asn Ser Gln Leu Ile Arg Lys Ser Lys Arg Phe Arg
 1605 1610 1615
 Leu Arg Tyr Asp Gly Ile His Tyr Leu Asp Ile Val Asp Cys Lys Ser
 1620 1625 1630
 Tyr Asp Thr Gly Glu Val Lys Val Thr Ala Glu Asn Pro Glu Gly Phe
 1635 1640 1645
 Ile Glu His Lys Val Lys Leu Glu Ile Gln Gln Arg Glu Asp Phe Arg
 1650 1655 1660
 Ser Val Leu Arg Arg Ala Pro Glu Pro Arg His Glu Pro Val Val Thr
 1665 1670 1675 1680
 Glu Pro Gly Lys Leu Leu Phe Glu Val Gln Lys Ile Asp Lys Pro Ala
 1685 1690 1695
 Glu Ala Thr Thr Lys Glu Val Val Lys Leu Lys Arg Ala Glu Arg Ile
 1700 1705 1710
 Thr His Glu Lys Leu Ser Glu Glu Ser Glu Glu Leu Arg Ser Lys Phe
 1715 1720 1725
 Lys Arg Arg Thr Glu Glu Gly Tyr Tyr Glu Ala Ile Thr Ala Val Glu
 1730 1735 1740
 Leu Lys Ser Arg Lys Lys Asp Glu Ser Tyr Glu Glu Met Leu Lys Lys
 1745 1750 1755 1760
 Thr Lys Glu Glu Leu Leu His Trp Thr Lys Glu Ile Pro Glu Glu Glu

1765	1770	1775
Lys Lys Ala Leu Pro Pro Glu Gly Lys Ile Thr Ile Pro Thr Phe Lys 1780 1785 1790		
Pro Glu Lys Val Glu Leu Ser Pro Ser Met Glu Ala Pro Lys Ile Phe 1795 1800 1805		
Glu Arg Ile Gln Ser Gln Thr Val Ala Gln Gly Thr Asp Ala His Phe 1810 1815 1820		
Arg Val Arg Val Val Gly Lys Pro Asp Pro Glu Cys Gln Trp Phe Arg 1825 1830 1835 1840		
Asn Gly Val Gln Ile Glu Arg Thr Asp Arg Ile Tyr Trp Tyr Trp Pro 1845 1850 1855		
Glu Asp Asn Val Cys Glu Leu Val Ile Arg Asp Val Thr Ala Asp Asp 1860 1865 1870		
Ser Ala Ser Ile Met Val Lys Ala Val Asn Ile Ala Gly Glu Thr Ser 1875 1880 1885		
Ser His Ala Phe Leu Leu Val Gln Ala Lys Gln Leu Ile Ser Phe Ile 1890 1895 1900		
Gln Asn Leu Gln Asp Val Val Ala Lys Glu Arg Asp Ser Met Ala Thr 1905 1910 1915 1920		
Phe Glu Cys Glu Thr Ser Glu Pro Phe Ile Lys Val Lys Trp Phe Lys 1925 1930 1935		
Asn Gly Ile Glu Ile His Ser Gly Glu Lys Tyr Arg Met His Ser Asp 1940 1945 1950		
Arg Lys Ala His Phe Leu Ser Val Leu Ala Val Glu Met Ser Asp Ala 1955 1960 1965		
Asp Asp Tyr Ser Cys Ala Leu Val Glu Asp Glu Ser Val Lys Thr Thr 1970 1975 1980		
Ala Lys Leu Ile Val Glu Gly Ala Val Val Glu Phe Ile Lys Glu Leu 1985 1990 1995 2000		
Glu Asp Val Glu Val Pro Glu Ser Phe Thr Gly Glu Leu Glu Cys Glu 2005 2010 2015		
Val Ser Pro Glu Asp Ile Glu Gly Lys Trp Tyr His Gly Asp Val Glu 2020 2025 2030		
Leu Ser Ser Asn His Lys Tyr Val Leu Ala Ser Arg Arg Gly Arg Arg 2035 2040 2045		
Ile Leu Thr Ile Lys Asp Val Asn Lys Asp Asp Gln Gly Glu Tyr Ser 2050 2055 2060		
Phe Val Val Asp Gly Lys Arg Thr His Cys Lys Leu Lys Met Lys Pro		

2065	2070	2075	2080
Arg Pro Met Thr Ile Leu Gln Gly Leu Thr Asp Gln Lys Val Cys Glu			
2085		2090	2095
Gly Asp Ile Val Gln Leu Glu Val Lys Val Ser Val Glu Asn Val Glu			
2100		2105	2110
Gly Val Trp Met Lys Asp Gly His Glu Ile Gln Ser Ser Asp Arg Ile			
2115		2120	2125
His Ile Val Leu Asp Lys Gln Ser His Met Leu Leu Ile Glu Asp Ala			
2130		2135	2140
Thr Gln Glu Asp Ser Gly Thr Tyr Ser Phe Ser Ile Pro Gly Leu Glu			
2145		2150	2155
Leu Ser Thr Thr Gly Gln Val Thr Val Tyr Ser Val Glu Ile Ile Val			
	2165	2170	2175
Pro Leu Lys Asp Val His Val Val Glu Gly Thr Lys Ala Ile Leu Glu			
	2180	2185	2190
Cys Lys Val Ser Ala Pro Asp Val Thr Ser Ser Lys Trp Tyr Leu Asn			
	2195	2200	2205
Asp His Gln Ile Lys Pro Asp Glu Arg Val Gln Ala Val Cys Lys Gly			
	2210	2215	2220
Thr Lys Gln Arg Leu Val Ile Thr Arg Thr His Ala Ser Asp Glu Gly			
	2225	2230	2235
His Tyr Lys Leu Met Val Gly Lys Val Glu Thr Ser Cys Asn Val Thr			
	2245	2250	2255
Val Glu Glu Ile Glu Ile Ile Arg Gly Leu His Asp Ile Thr Cys Thr			
	2260	2265	2270
Glu Thr Gln Asn Val Ser Phe Glu Val Glu Leu Ser His Ser Gly Ile			
	2275	2280	2285
Asp Val Ile Trp His Phe Lys Gly Gln Glu Ile Lys Ala Gly Pro Lys			
	2290	2295	2300
Tyr Lys Ile Glu Ala Arg Gly Lys Ile Tyr Lys Leu Thr Val Val Lys			
	2305	2310	2315
Met Met Lys Asp Asp Glu Gly Glu Tyr Val Phe Tyr Ala Gly Gly Lys			
	2325	2330	2335
Lys Thr Ser Gly Lys Leu Ile Val Ala Gly Gly Ala Ile Ser Lys Pro			
	2340	2345	2350
Leu Ala Asp Leu Thr Val Ala Glu Ser Gln Arg Ala Val Phe Glu Cys			
	2355	2360	2365
Glu Val Ala Asn Pro Glu Ser Glu Gly Gln Trp Leu Lys Asn Gly Lys			

2370 2375 2380
 Pro Leu Pro Met Thr Asp Gln Tyr Arg Ala Glu Thr Asp Gly Val Lys
 2385 2390 2395 2400
 Arg Arg Leu Asn Ile Pro Ala Ala Lys Met Asp Asp Met Gly Glu Tyr
 2405 2410 2415
 Ser Tyr Glu Ile Ala Ser Ser Lys Thr Ser Ala Lys Leu His Val Glu
 2420 2425 2430
 Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu Thr Val Thr Glu Thr
 2435 2440 2445
 Gln Glu Ala Val Phe Ser Val Glu Leu Ser His Pro Asp Val Lys Gly
 2450 2455 2460
 Ala Leu Trp Ile Lys Asn Gly Val Glu Leu Glu Ser Asn Asp Lys Tyr
 2465 2470 2475 2480
 Glu Ile Ser Val Lys Gly Thr Val His Thr Leu Lys Ile Lys His Cys
 2485 2490 2495
 Val Val Thr Asp Glu Ser Val Tyr Ser Phe Lys Leu Gly Lys Ile Gly
 2500 2505 2510
 Ala Asn Ala Arg Leu His Val Glu Thr Val Lys Ile Ile Lys Lys Pro
 2515 2520 2525
 Lys Asp Val Thr Ala Leu Glu Asn Ala Val Val Ser Phe Glu Leu Ser
 2530 2535 2540
 Val Ser His Asp Thr Val Pro Val Arg Trp Phe His Lys Asn Val Glu
 2545 2550 2555 2560
 Leu Lys Gln Ser Asp Lys Tyr Lys Met Ile Ser Gln Arg Lys Val His
 2565 2570 2575
 Lys Leu Met Leu His Asn Ile Ser Pro Ala Asp Ala Gly Glu Tyr Thr
 2580 2585 2590
 Ala Phe Val Gly Gln Leu Glu Cys Lys Ala Lys Leu Phe Val Glu Thr
 2595 2600 2605
 Ile His Ile Thr Lys Thr Met Lys Ser Ile Glu Ile Pro Glu Thr Lys
 2610 2615 2620
 Thr Ala Ser Phe Gln Cys Glu Val Ser His Phe Asn Val Pro Ser Val
 2625 2630 2635 2640
 Trp Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys Phe Lys Ile
 2645 2650 2655
 Val Val Gln Gly Lys Leu His Gln Leu Asn Ile Met Asn Thr Ser Ser
 2660 2665 2670
 Glu Asp Ser Ala Glu Tyr Thr Phe Val Cys Gly Asn Asp Arg Val Ser

2675	2680	2685
Ala Thr Leu Thr Val Lys Pro Ile Leu Ile Thr Ser Met Leu Glu Asp 2690	2695	2700
Ile Asn Ala Glu Glu Lys Asp Thr Ile Thr Phe Glu Val Thr Val Asn 2705	2710	2715 2720
Tyr Glu Gly Ile Ser Tyr Lys Trp Leu Lys Asn Gly Val Glu Ile Lys 2725	2730	2735
Ser Thr Asp Lys Cys Gln Ile Arg Thr Lys Lys Leu Thr His Ser Leu 2740	2745	2750
Ser Ile Arg Asn Val His Phe Gly Asp Ala Ala Glu Tyr Ser Phe Val 2755	2760	2765
Ala Gly Lys Ala Ala Ser Ser Ala Thr Leu Tyr Val Glu Ala Arg His 2770	2775	2780
Ile Glu Phe Arg Lys His Ile Lys Asp Ile Lys Val Val Glu Lys Lys 2785	2790	2795 2800
Arg Ala Ile Phe Glu Cys Glu Ile Ser Glu Pro Asp Val Gln Val Gln 2805	2810	2815
Trp Met Lys Asp Gly Gln Glu Leu Gln Ile Gly Asp Arg Met Lys Ile 2820	2825	2830
Gln Arg Glu Lys Tyr Val His Arg Leu Ile Ile Pro Ser Thr Lys Met 2835	2840	2845
Ser Asp Ala Gly Gln Tyr Thr Val Val Ala Gly Gly Asn Thr Ser Ser 2850	2855	2860
Ala Asn Leu Ile Val Glu Gly Arg Asp Val Arg Ile Arg Ser Ile Arg 2865	2870	2875 2880
Lys Glu Ile Gln Val Ile Glu Arg Gln Arg Ala Glu Ile Glu Phe Glu 2885	2890	2895
Val Asn Glu Asp Asp Ile Glu Pro Gln Trp Tyr Lys Asp Gly Ile Glu 2900	2905	2910
Ile Asn Phe His Tyr Glu Glu Arg Tyr Ser Tyr Val Val Glu Arg Arg 2915	2920	2925
Ile His Arg Met Ser Ile Phe Glu Thr Thr Tyr Ser Asp Ala Gly Glu 2930	2935	2940
Tyr Thr Phe Val Ala Gly Arg Asn Arg Ser Ser Val Val Leu Tyr Val 2945	2950	2955 2960
Asn Ala Pro Glu Pro Pro Gln Ile Ile Gln Glu Leu Gln Pro Thr Thr 2965	2970	2975
Val Glu Ser Gly Lys Pro Ala Arg Phe Cys Ala Ile Ile Ser Gly Lys		

2980	2985	2990
Pro Gln Pro Lys Val Ser Trp Tyr Lys Asp Asp Gln Gln Leu Ser Pro	3000	3005
2995		
Gly Phe Lys Cys Lys Phe Leu His Asp Ala Gln Glu Tyr Thr Leu Leu	3015	3020
3010		
Leu Ile Glu Thr Phe Pro Glu Asp Ser Ala Val Tyr Thr Cys Glu Ala	3030	3035
3025		3040
Lys Asn Asp Tyr Gly Val Ala Thr Thr Ser Ala Ser Leu Ser Val Glu	3045	3050
		3055
Ile Pro Glu Val Val Ser Pro Glu Leu Glu Val Pro Val Tyr Pro Pro	3060	3065
		3070
Ala Val Ile Val Pro Leu Arg Asp Ala Val Thr Ser Glu Gly Gln Ser	3075	3080
		3085
Ala Arg Phe Gln Cys Arg Val Thr Gly Thr Asp Leu Lys Val Ser Trp	3090	3095
		3100
Tyr Ser Lys Asp Arg Glu Ile Lys Pro Ser Arg Phe Phe Arg Met Thr	3105	3110
		3115
Gln Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala Tyr Pro Glu	3125	3130
		3135
Asp Glu Gly Thr Tyr Thr Phe Val Ala Ser Asn Ser Val Gly Gln Val	3140	3145
		3150
Thr Ser Thr Ala Ile Leu Lys Leu Glu Ala Pro Glu Lys Ile Met Tyr	3155	3160
		3165
Glu Lys Leu Glu Glu Glu Ile Glu Met Glu Val Lys Val Ala Pro Ile	3170	3175
		3180
Leu Arg Arg Arg Leu Glu Pro Leu Glu Val Ala Val Asn His Val Ala	3185	3190
		3195
Lys Phe Thr Cys Glu Val Glu Thr Thr Pro Asn Val Lys Phe Gln Trp	3205	3210
		3215
Tyr Lys Ala Gly Arg Glu Ile Tyr Asp Gly Asp Lys Tyr Ser Ile Arg	3220	3225
		3230
Ser Ser Asn Tyr Leu Ser Thr Leu Glu Ile Pro Arg Pro Gln Val Val	3235	3240
		3245
Asp Cys Gly Glu Tyr Ser Cys Lys Ala Ser Asn Gln His Gly Ser Val	3250	3255
		3260
Ser Ser Thr Ala Phe Leu Thr Val Thr Glu Pro Pro Arg Phe Ile Lys	3265	3270
		3275
Lys Leu Asp Ser Ser Arg Leu Val Lys Gln His Asp Ser Thr Arg Tyr		

3285	3290	3295
Glu Cys Lys Val Gly Gly Ser Pro Glu Ile Lys Val Thr Trp Tyr Lys 3300 3305 3310		
Gly Glu Thr Glu Ile His Pro Ser Glu Lys Tyr Ser Met Ser Phe Val 3315 3320 3325		
Asp Ser Val Ala Val Leu Glu Met His Asn Leu Ser Val Glu Asp Ser 3330 3335 3340		
Gly Asp Tyr Ser Cys Glu Ala Gln Asn Pro Ala Gly Ser Ala Ser Thr 3345 3350 3355 3360		
Ser Thr Ser Leu Lys Val Lys Ala Pro Pro Ala Phe Thr Lys Lys Pro 3365 3370 3375		
His Pro Val Gln Thr Leu Lys Gly Ser Asp Val His Leu Glu Cys Glu 3380 3385 3390		
Leu Gln Gly Thr Pro Pro Phe Gln Ile Ser Trp Tyr Lys Asp Lys Arg 3395 3400 3405		
Glu Ile Arg Ser Ser Lys Lys Tyr Lys Val Met Ser Glu Asn Tyr Leu 3410 3415 3420		
Ala Ser Ile His Ile Leu Asn Val Asp Thr Ala Asp Val Gly Glu Tyr 3425 3430 3435 3440		
His Cys Lys Ala Val Asn Asp Val Gly Ser Asp Ser Cys Ile Gly Ser 3445 3450 3455		
Val Thr Leu Arg Ala Pro Pro Thr Phe Val Lys Lys Leu Ser Asp Val 3460 3465 3470		
Thr Val Val Val Gly Glu Thr Ile Glu Leu Gln Ala Ala Val Glu Gly 3475 3480 3485		
Ala Gln Pro Ile Ser Val Leu Trp Leu Lys Asp Lys Gly Glu Ile Ile 3490 3495 3500		
Arg Glu Ser Glu Asn Leu Trp Ile Ser Tyr Ser Glu Asn Val Ala Ser 3505 3510 3515 3520		
Leu Lys Ile Gly Asn Ala Glu Pro Thr Asn Ala Gly Lys Tyr Ile Cys 3525 3530 3535		
Gln Ile Lys Asn Asp Ala Gly Phe Gln Glu Cys Phe Ala Lys Leu Thr 3540 3545 3550		
Val Leu Glu Pro Ala Val Ile Val Glu Lys Pro Gly Pro Val Lys Val 3555 3560 3565		
Thr Ala Gly Asp Ser Cys Thr Leu Glu Cys Thr Val Asp Gly Thr Pro 3570 3575 3580		
Glu Leu Thr Ala Arg Trp Phe Lys Asp Gly Asn Glu Leu Ser Thr Asp		

3585	3590	3595	3600
His Lys Tyr Lys Ile Ser Phe Phe Asn Lys Val Ser Gly Leu Lys Ile	3605	3610	3615
Leu Asn Ala Gly Leu Glu Asp Ser Gly Glu Tyr Thr Phe Glu Val Lys	3620	3625	3630
Asn Ser Val Gly Lys Ser Ser Cys Thr Ala Ser Leu Gln Val Ser Asp	3635	3640	3645
Arg Ile Met Pro Pro Ser Phe Thr Arg Lys Leu Lys Glu Thr Tyr Gly	3650	3655	3660
Gln Leu Gly Ser Ser Ala Val Leu Glu Cys Lys Val Tyr Gly Ser Pro	3665	3670	3675
Pro Ile Leu Val Ser Trp Phe His Asp Gly Gln Glu Ile Thr Ser Gly	3685	3690	3695
Asp Lys Tyr Gln Ala Thr Leu Thr Asp Asn Thr Cys Ser Leu Lys Val	3700	3705	3710
Asn Gly Leu Gln Glu Ser Asp Met Gly Thr Tyr Ser Cys Thr Ala Thr	3715	3720	3725
Asn Val Ala Gly Ser Asp Glu Cys Ser Ala Phe Leu Ser Val Arg Glu	3730	3735	3740
Pro Pro Ser Phe Val Lys Lys Pro Glu Pro Phe Asn Val Leu Ser Gly	3745	3750	3755
Glu Asn Ile Thr Phe Thr Ser Ile Val Lys Gly Ser Pro Pro Leu Glu	3765	3770	3775
Val Lys Trp Phe Arg Gly Ser Ile Glu Leu Ala Pro Gly His Lys Cys	3780	3785	3790
Asn Ile Thr Leu Gln Asp Ser Val Ala Glu Leu Glu Leu Phe Asp Val	3795	3800	3805
Gln Pro Leu Gln Ser Gly Asp Tyr Thr Cys Gln Val Ser Asn Glu Ala	3810	3815	3820
Gly Lys Ile Ser Cys Thr Thr His Leu Phe Val Lys Glu Pro Ala Lys	3825	3830	3835
Phe Val Met Lys Val Asn Asp Leu Ser Val Glu Lys Gly Lys Asn Leu	3845	3850	3855
Ile Leu Glu Cys Thr Tyr Thr Gly Thr Pro Pro Ile Ser Val Thr Trp	3860	3865	3870
Lys Lys Asn Gly Val Ile Leu Lys His Ser Glu Lys Cys Ser Ile Thr	3875	3880	3885
Thr Thr Glu Thr Ser Ala Ile Leu Glu Ile Pro Asn Ser Lys Leu Glu			

3890 3895 3900
 Asp Gln Gly Gln Tyr Ser Cys His Ile Glu Asn Asp Ser Gly Gln Asp
 3905 3910 3915 3920
 Asn Cys His Gly Ala Ile Thr Ile Leu Glu Pro Pro Tyr Phe Val Thr
 3925 3930 3935
 Pro Leu Glu Pro Val Gln Val Thr Val Gly Asp Ser Ala Ser Leu Gln
 3940 3945 3950
 Cys Gln Val Ala Gly Thr Pro Glu Met Ile Val Ser Trp Tyr Lys Gly
 3955 3960 3965
 Asp Thr Lys Leu Arg Gly Thr Ala Thr Val Lys Met His Phe Lys Asn
 3970 3975 3980
 Gln Val Ala Thr Leu Val Phe Ser Gln Val Asp Ser Asp Asp Ser Gly
 3985 3990 3995 4000
 Glu Tyr Ile Cys Lys Val Glu Asn Thr Val Gly Glu Ala Thr Ser Ser
 4005 4010 4015
 Ser Leu Leu Thr Val Gln Glu Arg Lys Leu Pro Pro Ser Phe Thr Arg
 4020 4025 4030
 Lys Leu Arg Asp Val His Glu Thr Val Gly Leu Pro Val Thr Phe Asp
 4035 4040 4045
 Cys Gly Ile Ala Gly Ser Glu Pro Ile Glu Val Ser Trp Phe Lys Asp
 4050 4055 4060
 Asn Val Arg Val Lys Glu Asp Tyr Asn Val His Thr Ser Phe Ile Asp
 4065 4070 4075 4080
 Asn Val Ala Ile Leu Gln Ile Leu Lys Thr Asp Lys Ser Leu Met Gly
 4085 4090 4095
 Gln Tyr Thr Cys Thr Ala Ser Asn Ala Ile Gly Thr Ala Ser Ser Ser
 4100 4105 4110
 Gly Lys Leu Val Leu Thr Glu Gly Lys Thr Pro Pro Phe Phe Asp Thr
 4115 4120 4125
 Pro Ile Thr Pro Val Asp Gly Ile Ile Gly Glu Ser Ala Asp Phe Glu
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 Cys His Ile Ser Gly Thr Gln Pro Ile Arg Val Thr Trp Ala Lys Asp
 4145 4150 4155 4160
 Asn Gln

<210> 93
 <211> 5636
 <212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (3003)

<223> Wherein Xaa is any amino acid as defined in the specification.

<220>

<221> VARIANT

<222> (3041)

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<220>

<221> VARIANT

<222> (3367)

<223> Wherein Xaa is any amino acid as defined in the specification.

<400> 93

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Tyr Ser Ser Leu Ala Gln Asp Ala Ser Pro Gln Ser Glu Ile Arg Ala
20 25 30

Glu Glu Phe Pro Glu Gly Ala Ser Thr Leu Ala Phe Val Phe Asp Val
35 40 45

Thr Gly Ser Met Tyr Asp Asp Leu Val Gln Val Ile Glu Gly Ala Ser
50 55 60

Lys Ile Leu Glu Thr Ser Leu Lys Arg Pro Lys Arg Pro Leu Phe Asn
65 70 75 80

Phe Ala Leu Val Pro Phe His Asp Pro Glu Ile Gly Pro Val Thr Ile
85 90 95

Thr Thr Asp Pro Lys Lys Phe Gln Tyr Glu Leu Arg Glu Leu Tyr Val
100 105 110

Gln Gly Gly Gly Asp Cys Pro Glu Met Ser Ile Gly Ala Ile Lys Ile
115 120 125

Ala Leu Glu Ile Ser Leu Pro Gly Ser Phe Ile Tyr Val Phe Thr Asp
130 135 140

Ala Arg Ser Lys Asp Tyr Arg Leu Thr His Glu Val Leu Gln Leu Ile
145 150 155 160

Gln Gln Lys Gln Ser Gln Val Val Phe Val Leu Thr Gly Asp Cys Asp
165 170 175

Asp Arg Thr His Ile Gly Tyr Lys Val Tyr Glu Glu Ile Ala Ser Thr
180 185 190

Ser Ser Gly Gln Val Phe His Leu Asp Lys Lys Gln Val Asn Glu Val
 195 200 205
 Leu Lys Trp Val Glu Glu Ala Val Gln Ala Ser Lys Val His Leu Leu
 210 215 220
 Ser Thr Asp His Leu Glu Gln Ala Val Asn Thr Trp Arg Ile Pro Phe
 225 230 235 240
 Asp Pro Ser Leu Lys Glu Val Thr Val Ser Leu Ser Gly Pro Ser Pro
 245 250 255
 Met Ile Glu Ile Arg Asn Pro Leu Gly Lys Leu Ile Lys Lys Gly Phe
 260 265 270
 Gly Leu His Glu Leu Leu Asn Ile His Asn Ser Ala Lys Val Val Asn
 275 280 285
 Val Lys Glu Pro Glu Ala Gly Met Trp Thr Val Lys Thr Ser Ser Ser
 290 295 300
 Gly Arg His Ser Val Arg Ile Thr Gly Leu Ser Thr Ile Asp Phe Arg
 305 310 315 320
 Ala Gly Phe Ser Arg Lys Pro Thr Leu Asp Phe Lys Lys Thr Val Ser
 325 330 335
 Arg Pro Val Gln Gly Ile Pro Thr Tyr Val Leu Leu Asn Thr Ser Gly
 340 345 350
 Ile Ser Thr Pro Ala Arg Ile Asp Leu Leu Glu Leu Leu Ser Ile Ser
 355 360 365
 Gly Ser Ser Leu Lys Thr Ile Pro Val Lys Tyr Tyr Pro His Arg Lys
 370 375 380
 Pro Tyr Gly Ile Trp Asn Ile Ser Asp Phe Val Pro Pro Asn Glu Ala
 385 390 395 400
 Phe Phe Leu Lys Val Thr Gly Tyr Asp Lys Asp Asp Tyr Leu Phe Gln
 405 410 415
 Arg Val Ser Ser Val Ser Phe Ser Ser Ile Val Pro Asp Ala Pro Lys
 420 425 430
 Val Thr Met Pro Glu Lys Thr Pro Gly Tyr Tyr Leu Gln Pro Gly Gln
 435 440 445
 Ile Pro Cys Ser Val Asp Ser Leu Leu Pro Phe Thr Leu Ser Phe Val
 450 455 460
 Arg Asn Gly Val Thr Leu Gly Val Asp Gln Tyr Leu Lys Glu Ser Ala
 465 470 475 480
 Ser Val Ser Leu Asp Ile Ala Lys Val Thr Leu Ser Asp Glu Gly Phe
 485 490 495

Tyr Glu Cys Ile Ala Val Ser Ser Ala Gly Thr Gly Arg Ala Gln Thr
 500 505 510
 Phe Phe Asp Val Ser Glu Pro Pro Pro Val Ile Gln Val Pro Asn Asn
 515 520 525
 Val Thr Val Thr Pro Gly Glu Arg Ala Val Leu Thr Cys Leu Ile Ile
 530 535 540
 Ser Ala Val Asp Tyr Asn Leu Thr Trp Gln Arg Asn Asp Arg Asp Val
 545 550 555 560
 Arg Leu Ala Glu Pro Ala Arg Ile Arg Thr Leu Ala Asn Leu Ser Leu
 565 570 575
 Glu Leu Lys Ser Val Lys Phe Asn Asp Ala Gly Glu Tyr His Cys Met
 580 585 590
 Val Ser Ser Glu Gly Gly Ser Ser Ala Ala Ser Val Phe Leu Thr Val
 595 600 605
 Gln Glu Pro Pro Lys Val Thr Val Met Pro Lys Asn Gln Ser Phe Thr
 610 615 620
 Gly Gly Ser Glu Val Ser Ile Met Cys Ser Ala Thr Gly Tyr Pro Lys
 625 630 635 640
 Pro Lys Ile Ala Trp Thr Val Asn Asp Met Phe Ile Val Gly Ser His
 645 650 655
 Arg Tyr Arg Met Thr Ser Asp Gly Thr Leu Phe Ile Lys Asn Ala Ala
 660 665 670
 Pro Lys Asp Ala Gly Ile Tyr Gly Cys Leu Ala Ser Asn Ser Ala Gly
 675 680 685
 Thr Asp Lys Gln Asn Ser Thr Leu Arg Tyr Ile Glu Ala Pro Lys Leu
 690 695 700
 Met Val Val Gln Ser Glu Leu Leu Val Ala Leu Gly Asp Ile Thr Val
 705 710 715 720
 Met Glu Cys Lys Thr Ser Gly Ile Pro Pro Pro Gln Val Lys Trp Phe
 725 730 735
 Lys Gly Asp Leu Glu Leu Arg Pro Ser Thr Phe Leu Ile Ile Asp Pro
 740 745 750
 Leu Leu Gly Leu Leu Lys Ile Gln Glu Thr Gln Asp Leu Asp Ala Gly
 755 760 765
 Asp Tyr Thr Cys Val Ala Ile Asn Glu Ala Gly Arg Ala Thr Gly Lys
 770 775 780
 Ile Thr Leu Asp Val Gly Ser Pro Pro Val Phe Ile Gln Glu Pro Ala
 785 790 795 800

Asp Val Ser Met Glu Ile Gly Ser Asn Val Thr Leu Pro Cys Tyr Val
 805 810 815
 Gln Gly Tyr Pro Glu Pro Thr Ile Lys Trp Arg Arg Leu Asp Asn Met
 820 825 830
 Pro Ile Phe Ser Arg Pro Phe Ser Val Ser Ser Ile Ser Gln Leu Arg
 835 840 845
 Thr Gly Ala Leu Phe Ile Leu Asn Leu Trp Ala Ser Asp Lys Gly Thr
 850 855 860
 Tyr Ile Cys Glu Ala Glu Asn Gln Phe Gly Lys Ile Gln Ser Glu Thr
 865 870 875 880
 Thr Val Thr Val Thr Gly Leu Val Ala Pro Leu Ile Gly Ile Ser Pro
 885 890 895
 Ser Val Ala Asn Val Ile Glu Gly Gln Gln Leu Thr Leu Pro Cys Thr
 900 905 910
 Leu Leu Ala Gly Asn Pro Ile Pro Glu Arg Arg Trp Ile Lys Asn Ser
 915 920 925
 Ala Met Leu Leu Gln Asn Pro Tyr Ile Thr Val Arg Ser Asp Gly Ser
 930 935 940
 Leu His Ile Glu Arg Val Gln Leu Gln Asp Gly Gly Glu Tyr Thr Cys
 945 950 955 960
 Val Ala Ser Asn Val Ala Gly Thr Asn Asn Lys Thr Thr Ser Val Val
 965 970 975
 Val His Val Leu Pro Thr Ile Gln His Gly Gln Gln Ile Leu Ser Thr
 980 985 990
 Ile Glu Gly Ile Pro Val Thr Leu Pro Cys Lys Ala Ser Gly Asn Pro
 995 1000 1005
 Lys Pro Ser Val Ile Trp Ser Lys Lys Gly Glu Leu Ile Ser Thr Ser
 1010 1015 1020
 Ser Ala Lys Phe Ser Ala Gly Ala Asp Gly Ser Leu Tyr Val Val Ser
 1025 1030 1035 1040
 Pro Glu Gly Glu Glu Ser Gly Glu Tyr Val Cys Thr Ala Thr Asn Thr
 1045 1050 1055
 Ala Gly Tyr Ala Lys Arg Lys Val Gln Leu Thr Val Tyr Val Arg Pro
 1060 1065 1070
 Arg Val Phe Gly Asp Leu Arg Gly Leu Ser Gln Asp Lys Pro Val Glu
 1075 1080 1085
 Ile Ser Val Leu Ala Gly Glu Glu Val Thr Leu Pro Cys Glu Val Lys
 1090 1095 1100

Ser Leu Pro Pro Pro Ile Ile Thr Trp Ala Lys Glu Thr Gln Leu Ile
 1105 1110 1115 1120
 Ser Pro Phe Ser Pro Arg His Thr Phe Leu Pro Ser Gly Ser Met Lys
 1125 1130 1135
 Ile Thr Glu Thr Arg Thr Ser Asp Ser Gly Met Tyr Leu Cys Val Ala
 1140 1145 1150
 Thr Asn Ile Ala Gly Asn Val Thr Gln Ala Val Lys Leu Asn Val His
 1155 1160 1165
 Val Pro Pro Lys Ile Gln Arg Gly Pro Lys His Leu Lys Val Gln Val
 1170 1175 1180
 Gly Gln Arg Val Asp Ile Pro Cys Asn Ala Gln Gly Thr Pro Leu Pro
 1185 1190 1195 1200
 Val Ile Thr Trp Ser Lys Gly Gly Ser Thr Met Leu Val Asp Gly Glu
 1205 1210 1215
 His His Val Ser Asn Pro Asp Gly Thr Leu Ser Ile Asp Gln Ala Thr
 1220 1225 1230
 Pro Ser Asp Ala Gly Ile Tyr Thr Cys Val Ala Thr Asn Ile Ala Gly
 1235 1240 1245
 Thr Asp Glu Thr Glu Ile Thr Leu His Val Gln Glu Pro Pro Thr Val
 1250 1255 1260
 Glu Asp Leu Glu Pro Pro Tyr Asn Thr Thr Phe Gln Glu Arg Val Ala
 1265 1270 1275 1280
 Asn Gln Arg Ile Glu Phe Pro Cys Pro Ala Lys Gly Thr Pro Lys Pro
 1285 1290 1295
 Thr Ile Lys Trp Leu His Asn Gly Arg Glu Leu Thr Gly Arg Glu Pro
 1300 1305 1310
 Gly Ile Ser Ile Leu Glu Glu Gly Thr Leu Leu Val Ile Ala Ser Val
 1315 1320 1325
 Thr Pro Tyr Asp Asn Gly Glu Tyr Ile Cys Val Ala Val Asn Glu Ala
 1330 1335 1340
 Gly Thr Thr Glu Arg Lys Tyr Asn Leu Lys Val His Val Pro Pro Val
 1345 1350 1355 1360
 Ile Lys Asp Lys Glu Gln Val Ser Asn Val Ser Val Leu Leu Asn Gln
 1365 1370 1375
 Leu Thr Asn Leu Phe Cys Glu Val Glu Gly Thr Pro Ser Pro Ile Ile
 1380 1385 1390
 Met Trp Tyr Lys Asp Asn Val Gln Val Thr Glu Ser Ser Thr Ile Gln
 1395 1400 1405

Thr Val Asn Asn Gly Lys Ile Leu Lys Leu Phe Arg Ala Thr Pro Glu
 1410 1415 1420
 Asp Ala Gly Arg Tyr Ser Cys Lys Ala Ile Asn Ile Ala Gly Thr Ser
 1425 1430 1435 1440
 Gln Lys Tyr Phe Asn Ile Asp Val Leu Val Pro Pro Thr Ile Ile Gly
 1445 1450 1455
 Thr Asn Phe Pro Lys Glu Val Ser Val Val Leu Asn Arg Asp Val Ala
 1460 1465 1470
 Leu Glu Cys Gln Val Lys Gly Thr Pro Phe Pro Asp Ile His Trp Phe
 1475 1480 1485
 Lys Asp Gly Lys Pro Leu Phe Leu Gly Asp Pro Asn Val Glu Leu Leu
 1490 1495 1500
 Asp Arg Gly Gln Val Leu His Leu Lys Asn Ala Arg Arg Asn Asp Lys
 1505 1510 1515 1520
 Gly Arg Tyr Gln Cys Thr Val Ser Asn Ala Ala Gly Lys Gln Ala Lys
 1525 1530 1535
 Asp Ile Lys Leu Thr Ile Tyr Ile Pro Pro Ser Ile Lys Gly Gly Asn
 1540 1545 1550
 Val Thr Thr Asp Ile Ser Val Leu Ile Asn Ser Leu Ile Lys Leu Glu
 1555 1560 1565
 Cys Lys Thr Arg Gly Leu Pro Met Pro Ala Ile Thr Trp Tyr Lys Asp
 1570 1575 1580
 Gly Gln Pro Ile Met Ser Ser Ser Gln Ala Leu Tyr Ile Asp Lys Gly
 1585 1590 1595 1600
 Gln Tyr Leu His Ile Pro Arg Ala Gln Val Ser Asp Ser Ala Thr Tyr
 1605 1610 1615
 Thr Cys His Val Ala Asn Val Ala Gly Thr Ala Glu Lys Ser Phe His
 1620 1625 1630
 Val Asp Val Tyr Val Pro Pro Met Ile Glu Gly Asn Leu Ala Thr Pro
 1635 1640 1645
 Leu Asn Lys Gln Val Val Ile Ala His Ser Leu Thr Leu Glu Cys Asn
 1650 1655 1660
 Ala Ala Gly Asn Pro Ser Pro Ile Leu Thr Trp Leu Lys Asp Gly Val
 1665 1670 1675 1680
 Pro Val Lys Ala Asn Asp Asn Phe Arg Ile Glu Ala Gly Gly Lys Lys
 1685 1690 1695
 Leu Glu Ile Met Ser Ala Gln Glu Ile Asp Arg Gly Gln Tyr Ile Cys
 1700 1705 1710

Val Ala Thr Ser Val Ala Gly Glu Lys Glu Ile Lys Tyr Glu Val Asp
 1715 1720 1725

Val Leu Val Pro Pro Ala Ile Glu Gly Gly Asp Glu Thr Ser Tyr Phe
 1730 1735 1740

Ile Val Met Val Asn Asn Leu Leu Glu Leu Asp Cys His Val Thr Gly
 1745 1750 1755 1760

Ser Pro Pro Pro Thr Ile Met Trp Leu Lys Asp Gly Gln Leu Ile Asp
 1765 1770 1775

Glu Arg Asp Gly Phe Lys Ile Leu Leu Asn Gly Arg Lys Leu Val Ile
 1780 1785 1790

Ala Gln Ala Gln Val Ser Asn Thr Gly Leu Tyr Arg Cys Met Ala Ala
 1795 1800 1805

Asn Thr Ala Gly Asp His Lys Lys Glu Phe Glu Val Thr Val His Val
 1810 1815 1820

Pro Pro Thr Ile Lys Ser Ser Gly Leu Ser Glu Arg Val Val Val Lys
 1825 1830 1835 1840

Tyr Lys Pro Val Ala Leu Gln Cys Ile Ala Asn Gly Ile Pro Asn Pro
 1845 1850 1855

Ser Ile Thr Trp Leu Lys Asp Asp Gln Pro Val Asn Thr Ala Gln Gly
 1860 1865 1870

Asn Leu Lys Ile Gln Ser Ser Gly Arg Val Leu Gln Ile Ala Lys Thr
 1875 1880 1885

Leu Leu Glu Asp Ala Gly Arg Tyr Thr Cys Val Ala Thr Asn Ala Ala
 1890 1895 1900

Gly Glu Thr Gln Gln His Ile Gln Leu His Val His Glu Pro Pro Ser
 1905 1910 1915 1920

Leu Glu Asp Ala Gly Lys Met Leu Asn Glu Thr Val Leu Val Ser Asn
 1925 1930 1935

Pro Val Gln Leu Glu Cys Lys Ala Ala Gly Asn Pro Val Pro Val Ile
 1940 1945 1950

Thr Trp Tyr Lys Asp Asn Cys Leu Leu Ser Gly Ser Thr Ser Met Thr
 1955 1960 1965

Phe Leu Asn Arg Gly Gln Ile Ile Asp Ile Glu Ser Ala Gln Ile Ser
 1970 1975 1980

Asp Ala Gly Ile Tyr Lys Cys Val Ala Ile Asn Ser Ala Gly Ala Thr
 1985 1990 1995 2000

Glu Leu Phe Tyr Ser Leu Gln Val His Val Ala Pro Ser Ile Ser Gly
 2005 2010 2015

Ser Asn Asn Met Val Ala Val Val Val Asn Asn Pro Val Arg Leu Glu
 2020 2025 2030
 Cys Glu Ala Arg Gly Ile Pro Ala Pro Ser Leu Thr Trp Leu Lys Asp
 2035 2040 2045
 Gly Ser Pro Val Ser Ser Phe Ser Asn Gly Leu Gln Val Leu Ser Gly
 2050 2055 2060
 Gly Arg Ile Leu Ala Leu Thr Ser Thr Gln Ile Ser Asp Thr Gly Arg
 2065 2070 2075 2080
 Tyr Thr Cys Val Ala Val Asn Ala Ala Gly Glu Lys Gln Arg Asp Ile
 2085 2090 2095
 Asp Leu Arg Val Tyr Val Pro Pro Asn Ile Met Gly Glu Glu Gln Asn
 2100 2105 2110
 Val Ser Val Leu Ile Ser Gln Ala Val Glu Leu Leu Cys Gln Ser Asp
 2115 2120 2125
 Ala Ile Pro Pro Pro Thr Leu Thr Trp Leu Lys Asp Gly His Pro Leu
 2130 2135 2140
 Leu Lys Lys Pro Gly Leu Ser Ile Ser Glu Asn Arg Ser Val Leu Lys
 2145 2150 2155 2160
 Ile Glu Asp Ala Gln Val Gln Asp Thr Gly Arg Tyr Thr Cys Glu Ala
 2165 2170 2175
 Thr Asn Val Ala Gly Lys Thr Glu Lys Lys Asn Tyr Asn Val Asn Ile
 2180 2185 2190
 Trp Val Pro Pro Asn Ile Gly Gly Ser Asp Glu Leu Thr Gln Leu Thr
 2195 2200 2205
 Val Ile Glu Gly Asn Leu Ile Ser Leu Leu Cys Glu Ser Ser Gly Ile
 2210 2215 2220
 Pro Pro Pro Asn Leu Ile Trp Lys Lys Lys Gly Ser Pro Val Leu Thr
 2225 2230 2235 2240
 Asp Ser Met Gly Arg Val Arg Ile Leu Ser Gly Gly Arg Gln Leu Gln
 2245 2250 2255
 Ile Ser Ile Ala Glu Lys Ser Asp Ala Ala Leu Tyr Ser Cys Val Ala
 2260 2265 2270
 Ser Asn Val Ala Gly Thr Ala Lys Lys Glu Tyr Asn Leu Gln Val Tyr
 2275 2280 2285
 Ile Arg Pro Thr Ile Thr Asn Ser Gly Ser His Pro Thr Glu Ile Ile
 2290 2295 2300
 Val Thr Arg Gly Lys Ser Ile Ser Leu Glu Cys Glu Val Gln Gly Ile
 2305 2310 2315 2320

Pro Pro Pro Thr Val Thr Trp Met Lys Asp Gly His Pro Leu Ile Lys
 2325 2330 2335
 Ala Lys Gly Val Glu Ile Leu Asp Glu Gly His Ile Leu Gln Leu Lys
 2340 2345 2350
 Asn Ile His Val Ser Asp Thr Gly Arg Tyr Val Cys Val Ala Val Asn
 2355 2360 2365
 Val Ala Gly Met Thr Asp Lys Lys Tyr Asp Leu Ser Val His Ala Pro
 2370 2375 2380
 Pro Ser Ile Ile Gly Asn His Arg Ser Pro Glu Asn Ile Ser Val Val
 2385 2390 2395 2400
 Glu Lys Asn Ser Val Ser Leu Thr Cys Glu Ala Ser Gly Ile Pro Leu
 2405 2410 2415
 Pro Ser Thr Thr Trp Phe Lys Asp Gly Trp Pro Val Ser Leu Ser Asn
 2420 2425 2430
 Ser Val Arg Ile Leu Ser Gly Gly Arg Met Leu Arg Leu Met Gln Thr
 2435 2440 2445
 Thr Met Glu Asp Ala Gly Gln Tyr Thr Cys Val Val Arg Asn Ala Ala
 2450 2455 2460
 Gly Glu Glu Arg Lys Ile Phe Gly Leu Ser Val Leu Val Pro Pro His
 2465 2470 2475 2480
 Ile Val Gly Glu Asn Thr Leu Glu Asp Val Lys Val Lys Glu Lys Gln
 2485 2490 2495
 Ser Val Thr Leu Thr Cys Glu Val Thr Gly Asn Pro Val Pro Glu Ile
 2500 2505 2510
 Thr Trp His Lys Asp Gly Gln Pro Leu Gln Glu Asp Glu Ala His His
 2515 2520 2525
 Ile Ile Ser Gly Gly Arg Phe Leu Gln Ile Thr Asn Val Gln Val Pro
 2530 2535 2540
 His Thr Gly Arg Tyr Thr Cys Leu Ala Ser Ser Pro Ala Gly His Lys
 2545 2550 2555 2560
 Ser Arg Ser Phe Ser Leu Asn Val Phe Val Ser Pro Thr Ile Ala Gly
 2565 2570 2575
 Val Gly Ser Asp Gly Asn Pro Glu Asp Val Thr Val Ile Leu Asn Ser
 2580 2585 2590
 Pro Thr Ser Leu Val Cys Glu Ala Tyr Ser Tyr Pro Pro Ala Thr Ile
 2595 2600 2605
 Thr Trp Phe Lys Asp Gly Thr Pro Leu Glu Ser Asn Arg Asn Ile Arg
 2610 2615 2620

Ile Leu Pro Gly Gly Arg Thr Leu Gln Ile Leu Asn Ala Gln Glu Asp
 2625 2630 2635 2640
 Asn Ala Gly Arg Tyr Ser Cys Val Ala Thr Asn Glu Ala Gly Glu Met
 2645 2650 2655
 Ile Lys His Tyr Glu Val Lys Val Tyr Ile Pro Pro Ile Ile Asn Lys
 2660 2665 2670
 Gly Asp Leu Trp Gly Pro Gly Leu Ser Pro Lys Glu Val Lys Ile Lys
 2675 2680 2685
 Val Asn Asn Thr Leu Thr Leu Glu Cys Glu Ala Tyr Ala Ile Pro Ser
 2690 2695 2700
 Ala Ser Leu Ser Trp Tyr Lys Asp Gly Gln Pro Leu Lys Ser Asp Asp
 2705 2710 2715 2720
 His Val Asn Ile Ala Ala Asn Gly His Thr Leu Gln Ile Lys Glu Ala
 2725 2730 2735
 Gln Ile Ser Asp Thr Gly Arg Tyr Thr Cys Val Ala Ser Asn Ile Ala
 2740 2745 2750
 Gly Glu Asp Glu Leu Asp Phe Asp Val Asn Ile Gln Val Pro Pro Ser
 2755 2760 2765
 Phe Gln Lys Leu Trp Glu Ile Gly Asn Met Leu Asp Thr Gly Arg Asn
 2770 2775 2780
 Gly Glu Ala Lys Asp Val Ile Ile Asn Asn Pro Ile Ser Leu Tyr Cys
 2785 2790 2795 2800
 Glu Thr Asn Ala Ala Pro Pro Pro Thr Leu Thr Trp Tyr Lys Asp Gly
 2805 2810 2815
 His Pro Leu Thr Ser Ser Asp Lys Val Leu Ile Leu Pro Gly Gly Arg
 2820 2825 2830
 Val Leu Gln Ile Pro Arg Ala Lys Val Glu Asp Ala Gly Arg Tyr Thr
 2835 2840 2845
 Cys Val Ala Val Asn Glu Ala Gly Glu Asp Ser Leu Gln Tyr Asp Val
 2850 2855 2860
 Arg Val Leu Val Pro Pro Ile Ile Glu Gly Ala Asn Ser Asp Leu Pro
 2865 2870 2875 2880
 Glu Glu Val Thr Val Leu Val Asn Lys Ser Ala Leu Ile Glu Cys Leu
 2885 2890 2895
 Ser Ser Gly Ser Pro Ala Pro Arg Asn Ser Trp Gln Lys Asp Gly Gln
 2900 2905 2910
 Pro Leu Leu Glu Asp Asp His His Lys Phe Leu Ser Asn Gly Arg Ile
 2915 2920 2925

Leu Gln Ile Leu Asn Thr Gln Ile Thr Asp Ile Gly Arg Tyr Val Cys
 2930 2935 2940

Val Ala Glu Asn Thr Ala Gly Ser Ala Lys Lys Tyr Phe Asn Leu Asn
 2945 2950 2955 2960

Val His Val Pro Pro Ser Val Ile Gly Pro Lys Ser Glu Asn Leu Thr
 2965 2970 2975

Val Val Val Asn Asn Phe Ile Ser Leu Thr Cys Glu Val Ser Gly Phe
 2980 2985 2990

Pro Pro Pro Asp Leu Ser Trp Leu Lys Asn Xaa Gln Pro Ile Lys Leu
 2995 3000 3005

Asn Thr Asn Thr Leu Ile Val Pro Gly Gly Arg Thr Leu Gln Ile Ile
 3010 3015 3020

Arg Ala Lys Val Ser Asp Gly Gly Glu Tyr Thr Cys Ile Ala Ile Asn
 3025 3030 3035 3040

Xaa Ala Gly Glu Ser Lys Lys Lys Phe Ser Leu Thr Val Tyr Val Pro
 3045 3050 3055

Pro Ser Ile Lys Asp His Asp Ser Glu Ser Leu Ser Val Val Asn Val
 3060 3065 3070

Arg Glu Gly Thr Ser Val Ser Leu Glu Cys Glu Ser Asn Ala Val Pro
 3075 3080 3085

Pro Pro Val Ile Thr Trp Tyr Lys Asn Gly Arg Met Ile Thr Glu Ser
 3090 3095 3100

Thr His Val Glu Ile Leu Ala Asp Gly Gln Met Leu His Ile Lys Lys
 3105 3110 3115 3120

Ala Glu Val Ser Asp Thr Gly Gln Tyr Val Cys Arg Ala Ile Asn Val
 3125 3130 3135

Ala Gly Arg Asp Asp Lys Asn Phe His Leu Asn Val Tyr Val Pro Pro
 3140 3145 3150

Ser Ile Glu Gly Pro Glu Arg Glu Val Ile Val Glu Thr Ile Ser Asn
 3155 3160 3165

Pro Val Thr Leu Thr Cys Asp Ala Thr Gly Ile Pro Pro Pro Thr Ile
 3170 3175 3180

Ala Trp Leu Lys Asn Tyr Lys Arg Ile Glu Asn Ser Asp Ser Leu Glu
 3185 3190 3195 3200

Val Arg Ile Leu Ser Gly Gly Ser Lys Leu Gln Ile Ala Arg Ser Gln
 3205 3210 3215

His Ser Asp Ser Gly Asn Tyr Thr Cys Ile Ala Ser Asn Met Glu Gly
 3220 3225 3230

Lys Ala Gln Lys Tyr Tyr Phe Leu Ser Ile Gln Val Pro Pro Ser Val
 3235 3240 3245
 Ala Gly Ala Glu Ile Pro Ser Asp Val Ser Val Leu Leu Gly Glu Asn
 3250 3255 3260
 Val Glu Leu Val Cys Asn Ala Asn Gly Ile Pro Thr Pro Leu Ile Gln
 3265 3270 3275 3280
 Trp Leu Lys Asp Gly Lys Pro Ile Ala Ser Gly Glu Thr Glu Arg Ile
 3285 3290 3295
 Arg Val Ser Ala Asn Gly Ser Thr Leu Asn Ile Tyr Gly Ala Leu Thr
 3300 3305 3310
 Ser Asp Thr Gly Lys Tyr Thr Cys Val Ala Thr Asn Pro Ala Gly Glu
 3315 3320 3325
 Glu Asp Arg Ile Phe Asn Leu Asn Val Tyr Val Thr Pro Thr Ile Arg
 3330 3335 3340
 Gly Asn Lys Asp Glu Ala Glu Lys Leu Met Thr Tyr Val Asp Thr Ser
 3345 3350 3355 3360
 Ile Asn Ile Glu Cys Arg Xaa Thr Gly Thr Pro Pro Pro Gln Ile Asn
 3365 3370 3375
 Trp Leu Lys Asn Gly Leu Pro Leu Pro Leu Ser Ser His Ile Arg Leu
 3380 3385 3390
 Leu Ala Ala Gly Gln Val Ile Arg Ile Val Arg Ala Gln Val Ser Asp
 3395 3400 3405
 Val Ala Val Tyr Thr Cys Val Ala Ser Asn Arg Ala Gly Val Asp Asn
 3410 3415 3420
 Lys His Tyr Asn Leu Gln Val Phe Ala Pro Pro Asn Met Asp Asn Ser
 3425 3430 3435 3440
 Met Gly Thr Glu Glu Ile Thr Val Leu Lys Gly Ser Ser Thr Ser Met
 3445 3450 3455
 Ala Cys Ile Thr Asp Gly Thr Pro Ala Pro Ser Met Ala Trp Leu Arg
 3460 3465 3470
 Asp Gly Gln Pro Leu Gly Leu Asp Ala His Leu Thr Val Ser Thr His
 3475 3480 3485
 Gly Met Val Leu Gln Leu Leu Lys Ala Glu Thr Glu Asp Ser Gly Lys
 3490 3495 3500
 Tyr Thr Cys Ile Ala Ser Asn Glu Ala Gly Glu Val Ser Lys His Phe
 3505 3510 3515 3520
 Ile Leu Lys Val Leu Glu Pro Pro His Ile Asn Gly Ser Glu Glu His
 3525 3530 3535

Glu Glu Ile Ser Val Ile Val Asn Asn Pro Leu Glu Leu Thr Cys Ile
 3540 3545 3550
 Ala Ser Gly Ile Pro Ala Pro Lys Met Thr Trp Met Lys Asp Gly Arg
 3555 3560 3565
 Pro Leu Pro Gln Thr Asp Gln Val Gln Thr Leu Gly Gly Gly Glu Val
 3570 3575 3580
 Leu Arg Ile Ser Thr Ala Gln Val Glu Asp Thr Gly Arg Tyr Thr Cys
 3585 3590 3595 3600
 Leu Ala Ser Ser Pro Ala Gly Asp Asp Asp Lys Glu Tyr Leu Val Arg
 3605 3610 3615
 Val His Val Pro Pro Asn Ile Ala Gly Thr Asp Glu Pro Arg Asp Ile
 3620 3625 3630
 Thr Val Leu Arg Asn Arg Gln Val Thr Leu Glu Cys Lys Ser Asp Ala
 3635 3640 3645
 Val Pro Pro Pro Val Ile Thr Trp Leu Arg Asn Gly Glu Arg Leu Gln
 3650 3655 3660
 Ala Thr Pro Arg Val Arg Ile Leu Ser Gly Gly Arg Tyr Leu Gln Ile
 3665 3670 3675 3680
 Asn Asn Ala Asp Leu Gly Asp Thr Ala Asn Tyr Thr Cys Val Ala Ser
 3685 3690 3695
 Asn Ile Ala Gly Lys Thr Thr Arg Glu Phe Ile Leu Thr Val Asn Val
 3700 3705 3710
 Pro Pro Asn Ile Lys Gly Gly Pro Gln Ser Leu Val Ile Leu Leu Asn
 3715 3720 3725
 Lys Ser Thr Val Leu Glu Cys Ile Ala Glu Gly Val Pro Thr Pro Arg
 3730 3735 3740
 Ile Thr Trp Arg Lys Asp Gly Ala Val Leu Ala Gly Asn His Ala Arg
 3745 3750 3755 3760
 Tyr Ser Ile Leu Glu Asn Gly Phe Leu His Ile Gln Ser Ala His Val
 3765 3770 3775
 Thr Asp Thr Gly Arg Tyr Leu Cys Met Ala Thr Asn Ala Ala Gly Thr
 3780 3785 3790
 Asp Arg Arg Arg Ile Asp Leu Gln Val His Val Pro Pro Ser Ile Ala
 3795 3800 3805
 Pro Gly Pro Thr Asn Met Thr Val Ile Val Asn Val Gln Thr Thr Leu
 3810 3815 3820
 Ala Cys Glu Ala Thr Gly Ile Pro Lys Pro Ser Ile Asn Trp Arg Lys
 3825 3830 3835 3840

Asn Gly His Leu Leu Asn Val Asp Gln Asn Gln Asn Ser Tyr Arg Leu
 3845 3850 3855
 Leu Ser Ser Gly Ser Leu Val Ile Ile Ser Pro Ser Val Asp Asp Thr
 3860 3865 3870
 Ala Thr Tyr Glu Cys Thr Val Thr Asn Gly Ala Gly Asp Asp Lys Arg
 3875 3880 3885
 Thr Val Asp Leu Thr Val Gln Val Pro Pro Ser Ile Ala Asp Glu Pro
 3890 3895 3900
 Thr Asp Phe Leu Val Thr Lys His Ala Pro Ala Val Ile Thr Cys Thr
 3905 3910 3915 3920
 Ala Ser Gly Val Pro Phe Pro Ser Ile His Trp Thr Lys Asn Gly Ile
 3925 3930 3935
 Arg Leu Leu Pro Arg Gly Asp Gly Tyr Arg Ile Leu Ser Ser Gly Ala
 3940 3945 3950
 Ile Glu Ile Leu Ala Thr Gln Leu Asn His Ala Gly Arg Tyr Thr Cys
 3955 3960 3965
 Val Ala Arg Asn Ala Ala Gly Ser Ala His Arg His Val Thr Leu His
 3970 3975 3980
 Val His Glu Pro Pro Val Ile Gln Pro Gln Pro Ser Glu Leu His Val
 3985 3990 3995 4000
 Ile Leu Asn Asn Pro Ile Leu Leu Pro Cys Glu Ala Thr Gly Thr Pro
 4005 4010 4015
 Ser Pro Phe Ile Thr Trp Gln Lys Glu Gly Ile Asn Val Asn Thr Ser
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 Gly Arg Asn His Ala Val Leu Pro Ser Gly Gly Leu Gln Ile Ser Arg
 4035 4040 4045
 Ala Val Arg Glu Asp Ala Gly Thr Tyr Met Cys Val Ala Gln Asn Pro
 4050 4055 4060
 Ala Gly Thr Ala Leu Gly Lys Ile Lys Leu Asn Val Gln Val Pro Pro
 4065 4070 4075 4080
 Val Ile Ser Pro His Leu Lys Glu Tyr Val Ile Ala Val Asp Lys Pro
 4085 4090 4095
 Ile Thr Leu Ser Cys Glu Ala Asp Gly Leu Pro Pro Pro Asp Ile Thr
 4100 4105 4110
 Trp His Lys Asp Gly Arg Ala Ile Val Glu Ser Ile Arg Gln Arg Val
 4115 4120 4125
 Leu Ser Ser Gly Ser Leu Gln Ile Ala Phe Val Gln Pro Gly Asp Ala
 4130 4135 4140

Gly His Tyr Thr Cys Met Ala Ala Asn Val Ala Gly Ser Ser Ser Thr
 4145 4150 4155 4160
 Ser Thr Lys Leu Thr Val His Val Pro Pro Arg Ile Arg Ser Thr Glu
 4165 4170 4175
 Gly His Tyr Thr Val Asn Glu Asn Ser Gln Ala Ile Leu Pro Cys Val
 4180 4185 4190
 Ala Asp Gly Ile Pro Thr Pro Ala Ile Asn Trp Lys Lys Asp Asn Val
 4195 4200 4205
 Leu Leu Ala Asn Leu Leu Gly Lys Tyr Thr Ala Glu Pro Tyr Gly Glu
 4210 4215 4220
 Leu Ile Leu Glu Asn Val Val Leu Glu Asp Ser Gly Phe Tyr Thr Cys
 4225 4230 4235 4240
 Val Ala Asn Asn Ala Ala Gly Glu Asp Thr His Thr Val Ser Leu Thr
 4245 4250 4255
 Val His Val Leu Pro Thr Phe Thr Glu Leu Pro Gly Asp Val Ser Leu
 4260 4265 4270
 Asn Lys Gly Glu Gln Leu Arg Leu Ser Cys Lys Ala Thr Gly Ile Pro
 4275 4280 4285
 Leu Pro Lys Leu Thr Trp Thr Phe Asn Asn Asn Ile Ile Pro Ala His
 4290 4295 4300
 Phe Asp Ser Val Asn Gly His Ser Glu Leu Val Ile Glu Arg Val Ser
 4305 4310 4315 4320
 Lys Glu Asp Ser Gly Thr Tyr Val Cys Thr Ala Glu Asn Ser Val Gly
 4325 4330 4335
 Phe Val Lys Ala Thr Gly Phe Val Tyr Val Lys Glu Pro Pro Val Phe
 4340 4345 4350
 Lys Gly Asp Tyr Pro Ser Asn Trp Ile Glu Pro Leu Gly Gly Asn Ala
 4355 4360 4365
 Ile Leu Asn Cys Glu Val Lys Gly Asp Pro Thr Pro Thr Ile Gln Trp
 4370 4375 4380
 Asn Arg Lys Gly Val Asp Ile Glu Ile Ser His Arg Ile Arg Gln Leu
 4385 4390 4395 4400
 Gly Asn Gly Ser Leu Ala Ile Tyr Gly Thr Val Asn Glu Asp Ala Gly
 4405 4410 4415
 Asp Tyr Thr Cys Val Ala Thr Asn Glu Ala Gly Val Val Glu Arg Ser
 4420 4425 4430
 Met Ser Leu Thr Leu Gln Ser Pro Pro Ile Ile Thr Leu Glu Pro Val
 4435 4440 4445

Glu Thr Val Ile Asn Ala Gly Gly Lys Ile Ile Leu Asn Cys Gln Ala
 4450 4455 4460
 Thr Gly Glu Pro Gln Pro Thr Ile Thr Trp Ser Arg Gln Gly His Ser
 4465 4470 4475 4480
 Ile Ser Trp Asp Asp Arg Val Asn Val Leu Ser Asn Asn Ser Leu Tyr
 4485 4490 4495
 Ile Ala Asp Ala Gln Lys Glu Asp Thr Ser Glu Phe Glu Cys Val Ala
 4500 4505 4510
 Arg Asn Leu Met Gly Ser Val Leu Val Arg Val Pro Val Ile Val Gln
 4515 4520 4525
 Val His Gly Gly Phe Ser Gln Trp Ser Ala Trp Arg Ala Cys Ser Val
 4530 4535 4540
 Thr Cys Gly Lys Gly Ile Gln Lys Arg Ser Arg Leu Cys Asn Gln Pro
 4545 4550 4555 4560
 Leu Pro Ala Asn Gly Gly Lys Pro Cys Gln Gly Ser Asp Leu Glu Met
 4565 4570 4575
 Arg Asn Cys Gln Asn Lys Pro Cys Pro Val Asp Gly Ser Trp Ser Glu
 4580 4585 4590
 Trp Ser Leu Trp Glu Glu Cys Thr Arg Ser Cys Gly Arg Gly Asn Gln
 4595 4600 4605
 Thr Arg Thr Arg Thr Cys Asn Asn Pro Ser Val Gln His Gly Gly Arg
 4610 4615 4620
 Pro Cys Glu Gly Asn Ala Val Glu Ile Ile Met Cys Asn Ile Arg Pro
 4625 4630 4635 4640
 Cys Pro Val His Gly Ala Trp Ser Ala Trp Gln Pro Trp Gly Thr Cys
 4645 4650 4655
 Ser Glu Ser Cys Gly Lys Gly Thr Gln Thr Arg Ala Arg Leu Cys Asn
 4660 4665 4670
 Asn Pro Pro Pro Ala Phe Gly Gly Ser Tyr Cys Asp Gly Ala Glu Thr
 4675 4680 4685
 Gln Met Gln Val Cys Asn Glu Arg Asn Cys Pro Ile His Gly Lys Trp
 4690 4695 4700
 Ala Thr Trp Ala Ser Trp Ser Ala Cys Ser Val Ser Cys Gly Gly Gly
 4705 4710 4715 4720
 Ala Arg Gln Arg Thr Arg Gly Cys Ser Asp Pro Val Pro Gln Tyr Gly
 4725 4730 4735
 Gly Arg Lys Cys Glu Gly Ser Asp Val Gln Ser Asp Phe Cys Asn Ser
 4740 4745 4750

Asp Pro Cys Pro Thr His Gly Asn Trp Ser Pro Trp Ser Gly Trp Gly
 4755 4760 4765
 Thr Cys Ser Arg Thr Cys Asn Gly Gly Gln Met Arg Arg Tyr Arg Thr
 4770 4775 4780
 Cys Asp Asn Pro Pro Pro Ser Asn Gly Gly Arg Ala Cys Gly Gly Pro
 4785 4790 4795 4800
 Asp Ser Gln Ile Gln Arg Cys Asn Thr Asp Met Cys Pro Val Asp Gly
 4805 4810 4815
 Ser Trp Gly Ser Trp His Ser Trp Ser Gln Cys Ser Ala Ser Cys Gly
 4820 4825 4830
 Gly Gly Glu Lys Thr Arg Lys Arg Leu Cys Asp His Pro Val Pro Val
 4835 4840 4845
 Lys Gly Gly Arg Pro Cys Pro Gly Asp Thr Thr Gln Val Thr Arg Cys
 4850 4855 4860
 Asn Val Gln Ala Cys Pro Gly Gly Pro Gln Arg Ala Arg Gly Ser Val
 4865 4870 4875 4880
 Ile Gly Asn Ile Asn Asp Val Glu Phe Gly Ile Ala Phe Leu Asn Ala
 4885 4890 4895
 Thr Ile Thr Asp Ser Pro Asn Ser Asp Thr Arg Ile Ile Arg Ala Lys
 4900 4905 4910
 Ile Thr Asn Val Pro Arg Ser Leu Gly Ser Ala Met Arg Lys Ile Val
 4915 4920 4925
 Ser Ile Leu Asn Pro Ile Tyr Trp Thr Thr Ala Lys Glu Ile Gly Glu
 4930 4935 4940
 Ala Val Asn Gly Phe Thr Leu Thr Asn Ala Val Phe Lys Arg Glu Thr
 4945 4950 4955 4960
 Gln Val Glu Phe Ala Thr Gly Glu Ile Leu Gln Met Ser His Ile Ala
 4965 4970 4975
 Arg Gly Leu Asp Ser Asp Gly Ser Leu Leu Leu Asp Ile Val Val Ser
 4980 4985 4990
 Gly Tyr Val Leu Gln Leu Gln Ser Pro Ala Glu Val Thr Val Lys Asp
 4995 5000 5005
 Tyr Thr Glu Asp Tyr Ile Gln Thr Gly Pro Gly Gln Leu Tyr Ala Tyr
 5010 5015 5020
 Ser Thr Arg Leu Phe Thr Ile Asp Gly Ile Ser Ile Pro Tyr Thr Trp
 5025 5030 5035 5040
 Asn His Thr Val Phe Tyr Asp Gln Ala Gln Gly Arg Met Pro Phe Leu
 5045 5050 5055

Val Glu Thr Leu His Ala Ser Ser Val Glu Ser Asp Tyr Asn Gln Ile
 5060 5065 5070
 Glu Glu Thr Leu Gly Phe Lys Ile His Ala Ser Ile Ser Lys Gly Asp
 5075 5080 5085
 Arg Ser Asn Gln Cys Pro Ser Gly Phe Thr Leu Asp Ser Val Gly Pro
 5090 5095 5100
 Phe Cys Ala Asp Glu Asp Glu Cys Ala Ala Gly Asn Pro Cys Ser His
 5105 5110 5115 5120
 Ser Cys His Asn Ala Met Gly Thr Tyr Tyr Cys Ser Cys Pro Lys Gly
 5125 5130 5135
 Leu Thr Ile Ala Ala Asp Gly Arg Thr Cys Gln Asp Ile Asp Glu Cys
 5140 5145 5150
 Ala Leu Gly Arg His Thr Cys His Ala Gly Gln Asp Cys Asp Asn Thr
 5155 5160 5165
 Ile Gly Ser Tyr Arg Cys Val Val Arg Cys Gly Ser Gly Phe Arg Arg
 5170 5175 5180
 Thr Ser Asp Gly Leu Ser Cys Gln Asp Ile Asn Glu Cys Gln Glu Ser
 5185 5190 5195 5200
 Ser Pro Cys His Gln Arg Cys Phe Asn Ala Ile Gly Ser Phe His Cys
 5205 5210 5215
 Gly Cys Glu Pro Gly Tyr Gln Leu Lys Gly Arg Lys Cys Met Asp Val
 5220 5225 5230
 Asn Glu Cys Arg Gln Asn Val Cys Arg Pro Asp Gln His Cys Lys Asn
 5235 5240 5245
 Thr Arg Gly Gly Tyr Lys Cys Ile Asp Leu Cys Pro Asn Gly Met Thr
 5250 5255 5260
 Lys Ala Glu Asn Gly Thr Cys Ile Asp Ile Asp Glu Cys Lys Asp Gly
 5265 5270 5275 5280
 Thr His Gln Cys Arg Tyr Asn Gln Ile Cys Glu Asn Thr Arg Ser Ser
 5285 5290 5295
 Tyr Arg Cys Val Cys Pro Arg Gly Tyr Arg Ser Gln Gly Val Gly Arg
 5300 5305 5310
 Pro Cys Met Asp Ile Asp Glu Cys Glu Gln Val Pro Lys Pro Cys Ala
 5315 5320 5325
 His Gln Cys Ser Asn Thr Pro Gly Ser Phe Lys Cys Ile Cys Pro Pro
 5330 5335 5340
 Gly Gln His Leu Leu Gly Asp Gly Lys Ser Cys Ala Gly Leu Glu Arg
 5345 5350 5355 5360

Leu Pro Asn Tyr Gly Thr Gln Tyr Ser Ser Tyr Asn Leu Ala Arg Phe
 5365 5370 5375
 Ser Pro Val Arg Asn Asn Tyr Gln Pro Gln Gln His Tyr Arg Gln Tyr
 5380 5385 5390
 Ser His Leu Tyr Ser Ser Tyr Ser Glu Tyr Arg Asn Ser Arg Thr Ser
 5395 5400 5405
 Leu Ser Arg Thr Arg Arg Thr Ile Arg Lys Thr Cys Pro Glu Gly Ser
 5410 5415 5420
 Glu Ala Ser His Asp Thr Cys Val Asp Ile Asp Glu Cys Glu Asn Thr
 5425 5430 5435 5440
 Asp Ala Cys Gln His Glu Cys Lys Asn Thr Phe Gly Ser Tyr Gln Cys
 5445 5450 5455
 Ile Cys Pro Pro Gly Tyr Gln Leu Thr His Asn Gly Lys Thr Cys Gln
 5460 5465 5470
 Asp Ile Asp Glu Cys Leu Glu Gln Asn Val His Cys Gly Pro Asn Arg
 5475 5480 5485
 Met Cys Phe Asn Met Arg Gly Ser Tyr Gln Cys Ile Asp Thr Pro Cys
 5490 5495 5500
 Pro Pro Asn Tyr Gln Arg Asp Pro Val Ser Gly Phe Cys Leu Lys Asn
 5505 5510 5515 5520
 Cys Pro Pro Asn Asp Leu Glu Cys Ala Leu Ser Pro Tyr Ala Leu Glu
 5525 5530 5535
 Tyr Lys Leu Val Ser Leu Pro Phe Gly Ile Ala Thr Asn Gln Asp Leu
 5540 5545 5550
 Ile Arg Leu Val Ala Tyr Thr Gln Asp Gly Val Met His Pro Arg Thr
 5555 5560 5565
 Thr Phe Leu Met Val Asp Glu Glu Gln Thr Val Pro Phe Ala Leu Arg
 5570 5575 5580
 Asp Glu Asn Leu Lys Gly Val Val Tyr Thr Thr Arg Pro Leu Arg Glu
 5585 5590 5595 5600
 Ala Glu Thr Tyr Arg Met Arg Val Arg Ala Ser Ser Tyr Ser Ala Asn
 5605 5610 5615
 Gly Thr Ile Glu Tyr Gln Thr Thr Phe Ile Val Tyr Ile Ala Val Ser
 5620 5625 5630
 Ala Tyr Pro Tyr
 5635

<210> 94

<211> 63

<212> PRT
 <213> Homo sapiens

<400> 94
 Leu Glu Gly Glu Ser Val Thr Leu Thr Cys Pro Ala Ser Gly Asp Pro
 1 5 10 15
 Val Pro Asn Ile Thr Trp Leu Lys Asp Gly Lys Pro Leu Pro Glu Ser
 20 25 30
 Arg Val Val Ala Ser Gly Ser Thr Leu Thr Ile Lys Asn Val Ser Leu
 35 40 45
 Glu Asp Ser Gly Leu Tyr Thr Cys Val Ala Arg Asn Ser Val Gly
 50 55 60

<210> 95
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 95
 Val Lys Glu Gly Glu Ser Val Thr Leu Ser Cys Glu Ala Ser Gly Asn
 1 5 10 15
 Pro Pro Pro Thr Val Thr Trp Tyr Lys Gln Gly Gly Lys Leu Leu Ala
 20 25 30
 Glu Ser Gly Arg Phe Ser Val Ser Arg Ser Gly Gly Asn Ser Thr Leu
 35 40 45
 Thr Ile Ser Asn Val Thr Pro Glu Asp Ser Gly Thr Tyr Thr Cys Ala
 50 55 60
 Ala Thr Asn Ser Ser Gly Ser Ala Ser Ser Gly Thr Thr Leu Thr Val
 65 70 75 80
 Leu

<210> 96
 <211> 629
 <212> PRT
 <213> Mus musculus

<400> 96
 Gln Ala Ala Arg Gly Arg Thr Arg Lys Gly Lys Tyr Cys Leu Gln Leu
 1 5 10 15
 Ser Pro Phe Ile Leu Trp Phe Leu Arg Leu Asp Asn Leu Ile Phe His
 20 25 30
 Pro Glu Lys Ala Glu Val Leu Ala Val Leu Asp Trp Glu Leu Ser Thr
 35 40 45

Leu Gly Asp Pro Phe Ala Asp Val Ala Tyr Ser Cys Leu Ala Tyr Tyr
 50 55 60
 Leu Pro Ser Ser Phe Pro Ile Leu Arg Gly Phe Arg Asp Gln Asp Val
 65 70 75 80
 Thr Lys Leu Gly Ile Pro Thr Val Glu Glu Tyr Phe Arg Met Tyr Cys
 85 90 95
 Leu Asn Met Gly Ile Pro Pro Ile Asp Asn Trp Asn Phe Tyr Met Ala
 100 105 110
 Phe Ser Phe Phe Arg Val Ala Ala Ile Leu Gln Gly Val Tyr Lys Arg
 115 120 125
 Ser Leu Thr Gly Gln Ala Ser Ser Ala Thr Ala Gln Gln Ser Gly Lys
 130 135 140
 Leu Thr Glu Ser Met Ala Glu Leu Ala Trp Asp Phe Ala Thr Lys Glu
 145 150 155 160
 Gly Phe Arg Val Phe Lys Glu Met Pro Ala Thr Lys Thr Leu Ser Arg
 165 170 175
 Ser Tyr His Ala Trp Ala Gly Pro Arg Ser Pro Arg Thr Pro Lys Gly
 180 185 190
 Val Arg Gly His Ser Thr Val Ala Ala Ala Ser Pro Ser His Glu Ala
 195 200 205
 Lys Gly Gly Leu Val Ile Ser Pro Glu Gly Leu Ser Pro Ala Val Arg
 210 215 220
 Lys Leu Tyr Glu Gln Leu Val Gln Phe Ile Glu Gln Lys Val Tyr Pro
 225 230 235 240
 Leu Glu Pro Glu Leu Gln Arg His Gln Ala Ser Ala Asp Arg Trp Ser
 245 250 255
 Pro Ser Pro Leu Ile Glu Asp Leu Lys Glu Lys Ala Lys Ala Glu Gly
 260 265 270
 Leu Trp Asn Leu Phe Leu Pro Leu Glu Thr Asp Pro Glu Lys Lys Tyr
 275 280 285
 Gly Ala Gly Leu Thr Asn Val Glu Tyr Ala His Leu Cys Glu Val Met
 290 295 300
 Gly Met Ser Leu Tyr Ala Ser Glu Ile Phe Asn Cys Ser Ala Pro Asp
 305 310 315 320
 Thr Gly Asn Met Glu Ile Leu Val Arg Tyr Gly Thr Glu Glu Gln Lys
 325 330 335
 Ala Arg Trp Leu Val Pro Leu Leu Glu Gly Arg Ile Arg Ser Cys Phe
 340 345 350

Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Ser Asn Ile Glu
 355 360 365

Ala Ser Ile Lys Glu Glu Asp Gly Cys Tyr Val Ile Asn Gly His Lys
 370 375 380

Trp Trp Thr Ser Gly Ile Leu Asp Pro Arg Cys Lys Leu Cys Val Phe
 385 390 395 400

Met Gly Lys Thr Asp Pro Gln Ala Pro Arg His Gln Gln Gln Ser Met
 405 410 415

Leu Leu Val Pro Met Asp Ser Pro Gly Ile Thr Val Ile Arg Pro Leu
 420 425 430

Ser Val Phe Gly Leu Glu Asp Pro Pro Gly Gly His Gly Glu Val Arg
 435 440 445

Phe Lys Asp Val Arg Val Pro Lys Glu Asn Ile Leu Leu Gly Pro Gly
 450 455 460

Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly Arg Ile His
 465 470 475 480

His Cys Met Arg Leu Ile Gly Tyr Ser Glu Arg Ala Leu Ala Leu Met
 485 490 495

Lys Thr Arg Val Met Ser Arg Thr Ala Phe Gly Lys Pro Leu Val Glu
 500 505 510

Gln Gly Thr Ile Leu Ala Asp Ile Ala Arg Ser Arg Val Glu Ile Glu
 515 520 525

Gln Ala Arg Leu Leu Val Leu Lys Ala Ala His Leu Met Asp Val Ala
 530 535 540

Gly Asn Lys Thr Ala Ala Leu Asp Ile Ala Met Ile Lys Met Val Val
 545 550 555 560

Pro Ser Met Ala Tyr His Val Ile Asp Arg Ala Ile Gln Ala Phe Gly
 565 570 575

Ala Ala Gly Leu Ser Ser Asp Tyr Pro Leu Ala Gln Phe Phe Gly Trp
 580 585 590

Ala Arg Ala Leu Arg Phe Ala Asp Gly Pro Asp Glu Val His Gln Leu
 595 600 605

Thr Val Ala Lys Met Glu Leu Lys Asn Gln Ser Arg Met Gln Glu Pro
 610 615 620

Ala Val Pro Arg Val
 625

<210> 97

<211> 455

<212> PRT

<213> Mus musculus

<400> 97

Met Glu Gln Arg Val Tyr Pro Ala Glu Pro Glu Leu Gln Ser His Gln
 1 5 10 15
 Ala Ser Ala Ala Arg Trp Ser Pro Ser Pro Leu Ile Glu Asp Leu Lys
 20 25 30
 Glu Lys Ala Lys Ala Glu Gly Leu Trp Asn Leu Phe Leu Pro Leu Glu
 35 40 45
 Ala Asp Pro Glu Lys Lys Tyr Gly Ala Gly Leu Thr Asn Val Glu Tyr
 50 55 60
 Ala His Leu Cys Glu Leu Met Gly Thr Ser Leu Tyr Ala Pro Glu Val
 65 70 75 80
 Cys Asn Cys Ser Ala Pro Asp Thr Gly Asn Met Glu Leu Leu Val Arg
 85 90 95
 Tyr Gly Thr Glu Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu
 100 105 110
 Gly Lys Ala Arg Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser
 115 120 125
 Ser Asp Ala Thr Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe
 130 135 140
 Tyr Val Ile Asn Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro
 145 150 155 160
 Arg Cys Gln Leu Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro
 165 170 175
 Arg His Arg Gln Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly
 180 185 190
 Ile Lys Ile Ile Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro
 195 200 205
 Gly Gly His Gly Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu
 210 215 220
 Asn Met Val Leu Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg
 225 230 235 240
 Leu Gly Pro Gly Arg Ile His His Cys Met Arg Leu Ile Gly Phe Ser
 245 250 255
 Glu Arg Ala Leu Ala Leu Met Lys Ala Arg Val Lys Ser Arg Leu Ala
 260 265 270
 Phe Gly Lys Pro Leu Val Glu Gln Gly Thr Val Leu Ala Asp Ile Ala
 275 280 285

Gln Ser Arg Val Glu Ile Glu Gln Ala Arg Leu Leu Val Leu Arg Ala
 290 295 300

Ala His Leu Met Asp Leu Ala Gly Asn Lys Ala Ala Ala Leu Asp Ile
 305 310 315 320

Ala Met Ile Lys Met Val Ala Pro Ser Met Ala Ser Arg Val Ile Asp
 325 330 335

Arg Ala Ile Gln Lys Thr Ser Leu Gln Glu Ala Trp Ser Leu Phe Gln
 340 345 350

Ala Arg Arg Arg Gly Phe Ala Glu Gly Gln Gly Gly Ser Gly Thr Glu
 355 360 365

Ser Gly Lys Leu Val Phe Arg Leu Ser Val Pro Gly Trp Ala Gly Thr
 370 375 380

Val Thr Ser Leu Gln Pro Phe Ser Pro Ser Leu Ser Ala Cys Gly Asn
 385 390 395 400

Leu Asp Thr Phe Trp Glu Ala Ser Gln Gly Cys Gly Thr Cys Leu Leu
 405 410 415

Trp Gln Leu Gln Gly Ser Cys Leu Ala Ser Leu Val Ser Arg Gly Ala
 420 425 430

Ala Thr Ala Gly Gly Gly Leu Glu Thr Gln Asp Leu Gly Ala Trp Glu
 435 440 445

Asn Gly Met Gln Pro Thr Leu
 450 455

<210> 98

<211> 415

<212> PRT

<213> Deinococcus radiodurans

<400> 98

Met Thr Met Phe Asp Thr Thr Pro Arg Ala Gln Asp Leu Arg Glu Arg
 1 5 10 15

Leu Leu Arg Phe Met Asp Thr Tyr Ile Tyr Pro Asn Glu Ala Glu Phe
 20 25 30

His Arg Gln Val Glu Ser Gly Glu Arg Trp Ala Pro Val Glu Leu Ile
 35 40 45

Glu Glu Leu Lys Pro Lys Ala Arg Ala Glu Gly Leu Trp Asn Leu Phe
 50 55 60

Leu Pro Pro Ala Ser Asp Pro Glu Gly Lys Phe Gly Ala Gly Leu Thr
 65 70 75 80

Asn Leu Glu Tyr Ala Gly Leu Cys Glu Ile Met Gly Arg Val Trp Trp

385 390 395 400
 Glu Leu Arg Arg Gln Gly Val Asp Leu Arg Ala Leu Ser Lys Arg
 405 410 415

 <210> 99
 <211> 409
 <212> PRT
 <213> Pseudomonas aeruginosa

 <400> 99
 Met Asp Phe Ala Tyr Ser Pro Lys Val Gln Glu Leu Arg Glu Arg Val
 1 5 10 15
 Ser Ala Phe Met Glu Ala His Val Tyr Pro Ala Glu Ala Val Phe Glu
 20 25 30
 Arg Gln Val Ala Glu Gly Asp Arg Trp Gln Pro Thr Ala Ile Met Glu
 35 40 45
 Glu Leu Lys Ala Lys Ala Lys Ala Glu Gly Leu Trp Asn Leu Phe Leu
 50 55 60
 Pro Glu Ser Glu Tyr Gly Ala Gly Leu Ala Asn His Glu Tyr Ala Pro
 65 70 75 80
 Leu Ala Glu Ile Met Gly Arg Ser Leu Ile Gly Pro Glu Pro Phe Asn
 85 90 95
 Cys Ala Ala Pro Asp Thr Gly Asn Met Glu Val Leu Val Arg Tyr Gly
 100 105 110
 Ser Glu Glu Gln Lys Arg Thr Trp Leu Glu Pro Leu Leu Ser Gly Glu
 115 120 125
 Ile Arg Ser Ala Phe Ala Met Thr Glu Pro Gly Val Ala Ser Ser Asp
 130 135 140
 Ala Thr Asn Met Glu Ala Arg Ala Glu Arg Gln Gly Asp Asp Trp Val
 145 150 155 160
 Ile Asn Gly Arg Lys Trp Trp Thr Ser Gly Ala Cys Asp Pro Arg Cys
 165 170 175
 Lys Ile Leu Ile Phe Met Gly Leu Thr Asn Pro Asp Ala Pro Arg His
 180 185 190
 Gln Gln His Ser Met Ile Leu Val Pro Val Asp Thr Pro Gly Val Lys
 195 200 205
 Ile Leu Arg Pro Leu Pro Val Phe Gly Tyr Asp Asp Ala Pro His Gly
 210 215 220
 His Ala Glu Val Leu Phe Glu Asn Val Arg Val Pro Tyr Glu Asn Val
 225 230 235 240

Ile Leu Gly Glu Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly
245 250 255

Pro Gly Arg Ile His His Cys Met Arg Ser Ile Gly Met Ala Glu Arg
260 265 270

Ala Leu Glu Leu Met Cys Lys Arg Ala Val Ser Arg Thr Ala Phe Gly
275 280 285

Lys Pro Leu Ala Arg Leu Gly Gly Asn Ile Asp His Ile Ala Asp Ser
290 295 300

Arg Met Glu Ile Asn Met Ala Arg Leu Leu Thr Leu Gln Ala Ala Tyr
305 310 315 320

Met Met Asp Thr Val Gly Asn Lys Ile Ala Gln Ser Glu Ile Ala Gln
325 330 335

Ile Lys Val Val Ala Pro Asn Val Ala Leu Lys Val Ile Asp Arg Ala
340 345 350

Ile Gln Met His Gly Gly Ala Gly Val Ser Asn Asp Phe Pro Leu Ala
355 360 365

Tyr Trp Tyr Ala Met Gln Arg Thr Leu Arg Leu Ala Asp Gly Pro Asp
370 375 380

Glu Val His Arg Ala Ala Ile Gly Lys Phe Glu Leu Gly Lys Tyr Val
385 390 395 400

Pro Arg Glu Met Leu Arg Ser Ser Arg
405

<210> 100

<211> 423

<212> PRT

<213> Arabidopsis thaliana

<400> 100

Met Asp Ala Val Gln Arg Asp Val Ser Pro Ser Tyr Glu Ser Leu Val
1 5 10 15

Asp Gly Ser Gly Arg Phe Ile Pro Asn Arg Lys Val Leu Glu Leu Arg
20 25 30

Gln Lys Leu Ile Lys Phe Met Glu Thr His Ile Tyr Pro Met Glu Asn
35 40 45

Glu Phe Ser Lys Leu Ala Gln Ser Asp Met Arg Trp Thr Val His Pro
50 55 60

Gln Glu Glu Lys Leu Lys Glu Met Ala Lys Arg Glu Gly Leu Trp Asn
65 70 75 80

Leu Phe Val Pro Ser Phe Asp Gln Leu Phe Gly Glu Gly Leu Thr Asn
85 90 95

Leu Glu Tyr Gly Tyr Leu Cys Glu Ile Met Gly Arg Ser Val Trp Ala
 100 105 110
 Pro Gln Val Phe Asn Cys Gly Ala Pro Asp Thr Gly Asn Met Glu Val
 115 120 125
 Ile Leu Arg Tyr Gly Asn Lys Glu Gln Ile Ser Glu Trp Leu Ile Pro
 130 135 140
 Leu Leu Glu Gly Arg Ile Arg Ser Gly Phe Ala Met Thr Glu Pro Gln
 145 150 155 160
 Val Ala Ser Ser Asp Ala Thr Asn Ile Glu Cys Ser Ile Arg Arg Gln
 165 170 175
 Gly Asp Ser Tyr Val Ile Asn Gly Thr Lys Trp Trp Thr Ser Gly Ala
 180 185 190
 Met Asp Pro Arg Cys Arg Val Leu Ile Leu Met Gly Lys Thr Asp Phe
 195 200 205
 Asn Ala Pro Lys His Lys Gln Gln Ser Met Ile Leu Val Asp Met Arg
 210 215 220
 Thr Pro Gly Ile Ser Val Lys Arg Pro Leu Thr Val Phe Gly Phe Asp
 225 230 235 240
 Asp Ala Pro His Gly His Ala Glu Ile Ser Phe Glu Asn Val Val Val
 245 250 255
 Pro Ala Lys Asn Ile Leu Leu Gly Glu Gly Arg Gly Phe Glu Ile Ala
 260 265 270
 Gln Gly Arg Leu Gly Pro Gly Arg Leu His His Cys Met Arg Leu Ile
 275 280 285
 Gly Ala Ala Glu Arg Gly Met Glu Leu Met Ala Gln Arg Ala Leu Ser
 290 295 300
 Arg Lys Thr Phe Gly Lys Phe Ile Ala Gln His Gly Ser Phe Val Ser
 305 310 315 320
 Asp Leu Ala Lys Leu Arg Val Glu Leu Glu Gly Thr Arg Leu Leu Val
 325 330 335
 Leu Glu Ala Ala Asp His Leu Asp Lys Phe Gly Asn Lys Lys Ala Arg
 340 345 350
 Gly Ile Leu Ala Met Ala Lys Val Ala Ala Pro Asn Met Ala Leu Lys
 355 360 365
 Val Leu Asp Thr Ala Ile Gln Val His Gly Ala Ala Gly Val Ser Ser
 370 375 380
 Asp Thr Val Leu Ala His Leu Trp Ala Thr Ala Arg Thr Leu Arg Ile
 385 390 395 400

Ala Asp Gly Pro Asp Glu Val His Leu Gly Thr Ile Gly Lys Leu Glu
 405 410 415

Leu Gln Arg Ala Ser Lys Leu
 420

<210> 101
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 101
 Gly Lys Gly Phe Lys Tyr Ala Met Lys Glu Leu Asp Met Glu Arg Leu
 1 5 10 15

Val Ile Ala Ala Gln Ala Leu Gly Ile Ala Gln Gly Ala Leu Asp Glu
 20 25 30

Ala Ile Pro Tyr Ala Lys Gln Arg Lys Gln Phe Gly Lys Pro Leu Ala
 35 40 45

His Phe Gln Leu Ile Gln Phe Lys Leu Ala Asp Met Ala Thr Lys Leu
 50 55 60

Glu Ala Ala Arg Leu Leu Leu Tyr Arg Ala Ala Trp Leu Ala Asp Arg
 65 70 75 80

Gly Arg Pro Thr Ser Lys Glu Ala Ala Met Ala Lys Leu Phe Ala Ser
 85 90 95

Glu Ala Ala Met Gln Val Ala Asp Asp Ala Val Gln Ile Leu Gly Gly
 100 105 110

Val Gly Tyr Thr Asn Asp Tyr Pro Val Glu Arg Phe Tyr Arg Asp Ala
 115 120 125

Lys Ile Thr Gln Ile Tyr Glu Gly Thr Ser Glu Ile Gln Arg Leu Val
 130 135 140

Ile Ala Arg
 145

<210> 102
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 102
 Ala Leu Thr Glu Pro Gly Ala Gly Ser Asp Val Gly Ser Ile Lys Thr
 1 5 10 15

Thr Ala Glu Arg Lys Gly Asp Asp Tyr Ile Leu Asn Gly Ser Lys Met
 20 25 30

Trp Ile Thr Asn Gly Gly Gln Ala Asp Trp Tyr Ile Val Leu Ala Val
 35 40 45
 Thr Asp Pro Ala Pro Gly Lys Lys Gly Ile Thr Ala Phe Leu Val Glu
 50 55 60
 Lys Asp Thr Pro Gly Phe His Ile Gly Lys Lys Glu Asp Lys Leu Gly
 65 70 75 80
 Leu Arg Ser Ser Asp Thr Cys Glu Leu Ile Phe Glu Asp Val Arg Val
 85 90 95
 Pro Glu Ser Asn Ile
 100

<210> 103
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 103
 gaggctctct ccagtaacat ca 22

<210> 104
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 104
 actctccttg tcctctgagg cgctct 26

<210> 105
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 105
 gcagtttggt tgtttggtt ac 22

<210> 106
 <211> 22

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 106 22
 catagccctg tctcaagtct tg

<210> 107
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 107 26
 ttccatctct tcagcaaattc ctctca

<210> 108
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 108 22
 actcttccga catcacaaga aa

<210> 109
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 109 22
 tgagaatcag atccatgaag ct

<210> 110
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer

Sequence

<400> 110
 ccattagctg ctctgaacac ctttgg 26

<210> 111
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 111
 gtcgctgacc accacatata gt 22

<210> 112
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 112
 ccactttctaa agccacattg tc 22

<210> 113
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 113
 tccacatctg gtcttgattt aatgtctga 29

<210> 114
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 114
 cttctctttg tggggagatt tc 22

<210> 115
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 115
aaagaaggat accagggatga tg 22

<210> 116
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 116
atgattgaac cttcaggtcc aattca 26

<210> 117
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 117
ggtaccattt cccttttggtga ca 22

<210> 118
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 118
ggaggctgaa ctggagaaaa 20

<210> 119
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 119
 ccaccctgct tttgcaggaa aagtat 26

<210> 120
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 120
 cttcaaggct ttgcaccata 20

<210> 121
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 121
 tggagcagct cagaaaacat gt 22

<210> 122
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 122
 agaatcggtg gtctgtcct tcccc 25

<210> 123
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 123
catagctgtc ttccagggtg aac

23

<210> 124
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 124
ggaggactct aatggttcca tt

22

<210> 125
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 125
accttggtgc tcgccctgac agt

23

<210> 126
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 126
cttcacgtca gctccagaat

20

<210> 127
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 127
ggaggactct aatggttcca tt

22

<210> 128

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 128
accttggtgc tcgccctgac agt

23

<210> 129
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 129
ttcacgtcag ctccagaatc

20

<210> 130
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 130
aaggactttg gaaccttttc ct

22

<210> 131
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 131
acccttagag gctgatcccg agaaaa

26

<210> 132
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 132
gatgtgcata ttccacattg gt

22